TEXTILE TECHNOLOGY DIGEST

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ABSTRACTS

FIBERS A

ELEMENTS OF A STATISTICAL THEORY OF PARALLEL FIBER BUNDLES. H. Breny. Ann. Sci. Textiles Belges No. 4: 58-88 (1957); No. 1: 22-55 (Mar. 1958). In French. Through BCIRA 38: 497 (1958). (4424)

In this study, the author describes two models of parallel fiber bundles, both based on the assumption that the fibers are straight cylinders with parallel axes. The first model refers to fiber bundles with finite lengths formed from a finite number of fibers arranged in a given manner ("ergodic," theory according to which the properties of a system with constant energy can be defined by mean values expressed as a function of time and not as a function of all the configurations of the system). The second model is an "ideal" model with respect to the present spinning techniques and illustrates the theory of stationary Poisson bundles (Martindale theory).

NATURAL FIBERS A 1

CHANGES, DUE TO HUMIDITY, OF SOME IMPORTANT MECHANICAL AND TECHNOLOGICAL PROPERTIES OF UNTREATED AND CHEMICALLY TREATED WOOL. G. Nitschke. Faserforsch. u. Textiltech. 9, No. 6: 217-226 (1958). In German. Through BCIRA 38: 575 (1958). (4425)

The effects of humidity acting on untreated and chemically treated wool are examined, with special reference to the changes produced in the elongation properties and the working modulus of the wool.

COIR FIBER. F. Vernieuwe. Rev. Textilis 14, No. 3: 29-37; No. 4: 21-26 (1958). In Dutch. Through BCIRA 38: 596 (1958). (4426)

Cultivation of coconut palms, constituents of the coconut, preparation of the coir fiber and yarn, types of yarn, structure and properties of the fiber, and uses of the yarn are discussed.

RIO GRANDE'S 1958 COTTON. F. L. Gerdes. Textile World 108: 53 (Nov. 1958). (4427)

In comparison with 1957 cotton, the new crop has about the same grade, slightly shorter staple length, lower waste, and poorer yarn appearance. Graphs.

CHANGE OF CROSS-SECTIONAL AREA OF SINGLE JUTE FILAMENTS WITH RELATIVE HUMIDITY. A. C. Chakravarty (Indian Central Jute Comm.). Textile Research J. 28: 878-880 (Oct. 1958). (4428)

MANMADE FIBERS A 2

MANUFACTURE AND USES OF LACTRON. Riv. Tessile 13, No. 3: 285-288 (1958). In Italian. Through BCIRA 38: 494 (1958). (4429)

The Pirelli Lastex SIAFE produces in Italy (since 1934) an elastic rubber thread (natural rubber from Hevea Brasiliensis) in circular sections under the name of Lactron. Technological properties, spinning procedure, count, physical and elastic properties, making-up, and uses of the thread are described.

POLYOLEFIN FIBERS IN TEXTILES. V. L. Erlich (Reeves Bros. Inc.). Modern Textiles Mag. 39: 59-67 (Nov. 1958). (4430)

The author discusses the structure, physical characteristics, potential textile uses, and economics of the polyolefins, with emphasis on polyethylene and polypropylene fibers. Tables. Graphs.

MANMADE FIBERS: MAJOR RECENT DEVELOPMENTS. R. W. Moncrieff. Textile Mfr. 84: 7-11, 16 (suppl., Oct. 1958). (4431)

Recent developments in cellulose rayons, chemically modified cotton, nylon, Terylene, acrylic fibers, polyethylene, polypropylene, and polystyrene fibers, Teflon, and regenerated protein fibers are discussed. Progress in pilling, laundering, thermal properties, and flameproofing as related to manmade fibers is also noted. 13 references.

EVALUATION OF THE SPINNING PROPERTIES OF MANMADE STAPLE FIBERS. H. L. Röder (NV Onderzoekingsinst. Research). Textile Research J. 28: 819-839 (Oct. 1958). (4432)

A survey is given of the 5 properties of individual fibers which determine behavior during processing: length, thickness, geometrical structure, surface layer, and the inside structure of the fiber. The criteria for normal processing on the cotton system and on the worsted system are mentioned and illustrated with some data. The methods used for measurement of these fiber properties are described. Graphs. Diagrams. Tables. Photographs. 18 references.

DRALON FIBER AND ITS TECHNOLOGICAL AND PHYSIOLOGICAL PROPERTIES. H. Kox. Melliand Textilber. 39, No. 6: 631-634 (1958). In German. Through BCIRA 38: 596 (1958). (4433)

Properties characterizing the technological behavior (tensile strength, elongation, abrasion resistance, crease-recovery, shrinkage, dye affinity), and physiological behavior (health and body comfort) of Dralon (acrylic) fibers and fabrics, respectively, and properties which contribute to the improvement of the wear value of Dralon garments (low water regain, nonfelting, permanent pleating effects, dimensional stability, soiling resistance, etc.) are discussed and uses of the fabrics are enumerated.

PROGRESS REPORT ON BRITISH NYLON. Man-Made Textiles 35: 139-154 (Oct. 1958). (4434)

Nylon applications for fashion fabrics, stretch and bulk yarns, household textiles, and industrial fabrics are reviewed.

GERMAN PROGRESS IN ACRYLIC FIBERS AND THEIR DYEING. B. Kramer (Farbenfabriken Bayer AG). Textile J. Australia 33: 608-612 (July 21, 1958). (4435)

The properties of Dralon, its application for blankets and upholstery, and the techniques used in its dyeing are described. Graphs.

PROGRESS REPORT ON BRITISH NYLON. Textile Recorder 76: 243-258 (Nov. 1958). (4436)

This series of articles covers developments in Agilon, stretch and bulk yarns, and applications of nylon in fashion, industrial, and household fabrics.

YARN PRODUCTION B

ITALIAN CRIMPING MACHINE. Melliand Textilber. 39, No. 5: 481 (1958). In German. Through BCIRA 38: 562 (1958). (4437)

A false-twist twisting machine for crimping synthetic yarns is described, with special reference to its hot-air heating system for setting the twist.

EVENNESS CHARTS AS TRAINING AIDS. I. Howell. Textile Inds. 122: 118-120 (Nov. 1958). (4438)

Examples of how evenness charts are used in a cotton mill for training drawing frame and card operators are given.

TECHNOLOGICAL TRENDS IN LINEN MANUFACTURE. Textile Recorder 76: 141-143 (Nov. 1958). (4439)

Developments in winding, warping, sizing, and weaving machinery are discussed. Photographs.

CARDING AND COMBING B 2

WHITIN SUPER J COMBER. Whitin Mach. Works. Whitin Rev. 25: 24-33 (Sept. 1958). (4440)

Construction and operation of the Super J comber, an 8-head single sided machine operating at a constant of 150 nips per min, are described. Photographs. Graphs. Diagrams.

MODERN CARD DRIVE. Melliand Textilber. 39, No. 7: 731-732 (1958). In German. Through BCIRA 38: 598 (1958). (4441)

The card drive, described and illustrated, has been tested and approved by the Technological Institute of the Textile Industry in Reutlingen, and is being used satisfactorily in various spinning mills. Since there are no belt drives from the transmission shaft to the individual cards, static electrification is greatly reduced and, owing to the smallness of the drive, passage between the cards is unobstructed and less dangerous. The drive can be used on any type of card.

DRAWING AND ROVING B 3

ROVING FRAME IMPROVEMENTS. Whitin Mach. Works. Whitin Rev. 25: 53-58 (Sept. 1958). (4442)

The feasibility of changing 12" x 6-1/2" frames to 14" x 6" frames, improvements in Neva-Pik flyers, and the application of the Unitrol weighting arrangement for long-draft frames are discussed. Photographs. Diagram.

WINDING AND BOBBIN BUILDING ON SPEED FRAMES. W. Nutter. Textile Recorder 76: 132-133, 137 (Nov. 1958). (4443)

Although the drafting system of the roving frame has an effect on roving uniformity, the most serious irregularities are likely to be introduced into the roving after it has left the nip of the front roller. These may be due to: roving stretch during the bobbin build, roving stretch on the initial layers, and between row variation. Methods of avoiding these irregularities at various stages in the build of the bobbin are discussed. Graphs. Diagrams.

SPINNING, WINDING, TWISTING B 4

SPINNING DRAFTING ELEMENTS. R. R. Miller. Textile Inds. 122: 123-126, 137 (Nov. 1958). (4444)

In this discussion of the factors affecting the efficiency of the drafting elements, research findings on roll weighting, slippage, and static are presented. Graphs. Photograph.

ANALYSIS OF THE POWER ECONOMY IN SPINNING MILLS. H. Schaefer. Melliand Textilber. 39, No. 7: 722-731 (1958). In German. Through BCIRA 38: 599 (1958). (4445)

A statistical analysis is made of the results obtained in two spinning mills, of which No. 2 produced approximately four times as much as No. 1 spinning mill. The investigations were carried out on opening machinery, drawframes, speed frames, and spinning machines to determine the power requirement per month, working hours and production, the interrelationship of these factors, and any changes in this interrelationship.

DEVELOPMENT OF MODERN SPINNING PRACTICE. W. A. Hunter. Textile Merc. 139: 557-559 (Oct. 17, 1958). (4446)

A brief survey.

CONTINUOUS PRODUCTION OF YARNS WITH INCREASED ELASTICITY. A. Maujean. Industrie Textile: 94-95 (Feb. 1958). In French. Through BCIRA 38: 499 (1958). (4447)

The apparatus described for continuous spinning of the yarn comprises, successively, a thread-feeding device, a twist-stopping arrangement, a heating element, a cooling zone, a false-twisting device, and a thread-delivering device below which means are provided for sizing and drying the thread. The twisted thread is first heated, between the twist-stopping arrangement and the false-twisting device, to a temperature exceeding that to which it is subjected during its supplementary treatment and then cooled. Setting of the detwisted thread is effected at 160-170° C.

ELECTRICAL AND MECHANICAL INFINITELY VARIABLE SPEED REGULATORS ON RING SPINNING MACHINES. P. Habicht. Melliand Textilber. 39, No. 7: 732 (1958). In German. Through BCIRA 38: 599 (1958). (4448)

Mechanical infinitely variable speed control by means of adjustable wedge-belt discs with a normal single speed motor (in particular, the Berges system) was found to be as efficient as, but simpler and safer than, the collector motors with electrically-controlled speed change. The optimum speed is in each case adjusted at the beginning of an operation (and, if required, during spinning) by means of a hand-operated wheel- or push-button control; the adjusted basic speed of the main shaft (about 920 rpm) can be altered as desired in the range of between 750 and 1,440 rpm by infinitely variable adjustment, and read off a scale.

MARZOLI SPINNING EQUIPMENT. R. Thiebaut. Industrie Textile: 351-354 (May 1958). In French. Through BCIRA 38: 599 (1958). (4449)

The new Italian Marzoli continuous spinning machine, with a spindle speed of 14,000 rpm for spinning counts from 60-120 to produce 70-g bobbins, is described. One of the characteristic features of the machine is the direct drive of the spindles without the use of tapes, rollers, or gears. On each side of the machine is placed a longitudinal shaft mounted on ball bearings and provided with elastic joints. Each spindle (center spindles are used to prevent vibrations) has its own pulley and is driven by a special rubber-coated, 4-6 mm wide, endless belt to ensure slip-free rotation. Each driving tape operates for up to 5,000 hr without interruption and its replacement is very simple and rapid. An individual spindle brake (a steel wire band driven by a small nylon cam) ensures instantaneous stopping of the spindle, if required.

EMCO SLUBBING DEVICE. G. Guggenheim. Textile Bull. 84: 60-61 (Oct. 1958). (4450)

The Electro-Mechanical Engineering Co. has developed an electrical device for making slub yarn. The operation of the unit's production timer, master control, and slubbing head is explained, and a report from a mill installation is included. Photographs.

PLATT ANTI-WEDGE RING. Platt Bros. Ltd. Platts Bull. 9, No. 7: 208-215 (1958). (4451)

Construction, performance, and advantages of the ring are described. Diagrams. Photographs. Table.

WHITIN PIEDMONT SPINNING FRAME. Whitin Mach. Works. Whitin Rev. 25: 2-23 (Sept. 1958). (4452)

Piedmont features include: 27-in. over-all width, covered individual spindle drive from side drive shafts, straight line spinning, traverses up to 12 in., and a scientific balloon control ring application. All gearing is enclosed in the head end. Features of the frame are described in detail. Photographs. Diagrams. Tables.

FUNDAMENTALS OF THE SPINNING RING DEVELOPMENT. PART 1. TRAVELER BURN AND SPEED CRITERION. P. F. Grishin (Whitin Mach. Co.). Whitin Rev. 25: 34-52 (Sept. 1958). (4453)

A definition is worked out for traveler life. Data are provided for prediction of traveler life if the criterion and number of burned travelers are specified. Graphs. Tables. 3 references.

YARNS B 5

PRODUCTION AND PROCESSING OF METALLIC YARNS. W. Winkler. Melliand Textilber. 39, No. 5: 499-501 (1958). In German. Through BCIRA 38: 562 (1958). (4454)

Preparation of metallic yarns (Mylar yarns on Dacron basis), and of multicolored effect yarns on metal basis, twisting of metallic fibers with thermoplastic filaments, preparation of metallic fibers for weaving, and the use of metallic fibers in weaving and knitting are described.

YARN GASSING MACHINE, GS 2 MODEL. E. Löhmer. Melliand Textilber. 39, No. 7: 790-794 (1958). In German. Through BCIRA 38: 599 (1958). (4455)

Constructional details of the machine are described (drive, grooved roller, thread passage through the burner, gas-mixing installation, bobbin holder, rocking mechanism for the bobbin holder, mechanism for the stop motion, combined blowing and sucking device) and its mechanism is outlined. The machine is produced by Franz Müller Maschinenfabrik.

MAKING NUBS FOR NOVELTY YARN. G. B. Peeler (Gold-Tex Fabric Corp.). Textile World 108: 62-63 (Nov. 1958). (4456)

The selection and setting of cards for this type of work are described. Diagram.

BAN-LON YARNS IN OUTERWEAR: POINTERS FOR QUALITY CONTROL IN KNITTING AND FINISHING. Man-Made Textiles 35: 160, 163 (Oct. 1958). (4457)

Recommendations for knitting, dyeing, finishing, and seaming Ban-Lon outerwear are given.

SPINNING LOOP YARNS. Textile World 108: 59 (Nov. 1958). (4458)

Directions for making loop yarns on fancy-yarn twisting frames and on converted dandy rovers are given.

SAABA TEXTURED YARN. Concordia Mfg. Co. Textile World 108: 64-65 (Nov. 1958). (4459)

Processing steps for Saaba stretch yarn are outlined. Photographs.

FABRIC PRODUCTION C

DEVELOPMENTS IN AUTOMATION AFFECTING WEAVING AND PREPARATION. D. Brunnschweiler. Textile Merc. 139: 551-552 (Oct. 17, 1958). (4460)

Brief comments on recent developments.

REPORT OF DISCUSSIONS OF QUESTIONS ON SLASHING AND WEAVING. Textile Operating Executives of Georgia. Atlanta, Ga., 1958. 12 p. (4461)

Slashing: high speed slashing, automatic brakes on section beams in creel, squeeze roll pressures, CMC size, starting yarn on loom beams at slasher, sizes on cotton vs spun rayon, and the jet cooker. Weaving: battery hands, loom cleaning, breaks at filling change, selvage control, relative humidity in weave room, check straps, cleaning filling grates, plastic vs wooden shuttles, loom repair cost, cloth identification, oil stains, and cloth inspection.

WARPING, SLASHING, YARN PREPARATION C 1

MAINTENANCE OF UNIFORM TENSION DURING WINDING. J. Corbin. Industrie Textile: 187-188 (Mar. 1958). In French. Through BCIRA 38: 601 (1958). (4462)

In order to eliminate or reduce thread tension variations during winding due to the changing diameter of the bobbins (cheeses and cops), a thread guide in the form of an eyelet or tensioner is arranged in front of the cop unwound from the end, the distance between this thread guide and the cop nose or front part of the bobbin changing in dependence of the cheese diameter or length of the cop so as to maintain a uniform tension during the whole unwinding operation. Means for controlling the thread guide movement are described.

EFFECT OF TIGHTENER TYPE ON THE THREAD TENSION. J. Pourret. Industrie Textile: 99-100 (Feb. 1958). In French. Through BCIRA 38: 501 (1958). (4463)

For controlling thread tension, the Schweiter electromechanical apparatus features for cotton a tightener with twin discs DD 2660, and for rayon and synthetic filaments the tightener DD 5011/14 and the tightener compensator DD 5025. This tightener compensator equalizes the tension differences produced, in particular, during unwinding at increased speed from cross-wound bobbins, spinning cakes, etc.

UNIVERSAL WINDING MACHINE WECO. Industrie Textile: 97-98 (Feb. 1958). In French. Through BCIRA 38: 501 (1958). (4464)

The mechanism of the machine is described and other Weco warping machines are enumerated.

CONTROL IN WINDING BY MEASURING FRICTIONAL TENSION. K. F. Seim. Melliand Textilber. 39, No. 5: 489-490 (1958). In German. Through BCIRA 38: 562 (1958). (4465)

The frictional tension controller described measures the frictional forces produced by the thread tension and thread velocity and acting on a measuring roller. The device can be fitted into the path of the thread on any winding machine to effect braking of the thread, by means of an adjustable spring, in proportion to the frictional-tension value indicated on the scale.

ROLLO DIRECT WARPING MACHINE. H. Fritsche. Melliand Textilber. 32, No. 5: 495-497 (1958). In German. Through BCIRA 38: 562 (1958). (4466)

The construction of the direct beaming mill is compared with that of the warping machine with "independent beams" as yarn carriers of bobbin-net lace machines, and the advantages of the new machine (Swindells Eng. Co.) are pointed out.

DRAWING-OFF VELOCITY DURING WARP WINDING OF COTTON, SPUN RAYON, WOOLEN, AND WORSTED YARNS. H. Eigenbertz. Melliand Textilber. 39, No. 5: 486-489; No. 6: 606-609 (1958). In German. Through BCIRA 38: 563 (1958). (4467)

The development of warp winding machines (from flange winders to high-speed cross-winding machines) is reviewed.

SIZING OF COTTON YARN: IMPORTANCE OF BATH VISCOSITY. G. De Backer and J. Strijckman. Ann. Sci. Textiles Belges No. 1: 7-21 (Mar. 1958). In French. Through BCIRA 38: 502 (1958). (4468)

Factors affecting the viscosity of sizing liquors (product, concentration, temperature, boiling time, rate of agitation) and the effect of viscosity on percentage size-uptake are discussed, with reference to the practical application of the laboratory results obtained on four commercial modified starches used in sizing cotton yarns (28s).

HIBBERT SIZING MACHINE. O. Reinhardt. Melliand Textilber. 39, No. 7: 752-755; No. 8: 863-865 (1958). In German. Through BCIRA 38: 602 (1958). (4469)

Various designs of fully automatic sizing installations and their capacity and potential uses are reviewed, with special reference to the Hibbert sizing machine with hot air dryer and the Shirley automatic size box. Size preparation by using the Rapisonic homogenizer, whose output is claimed to be 1300-1500 l./hr, is also described.

RUTI SINGLE- AND MULTI-LAYER DRYER. A. Gasser. Melliand Textilber. 39, No. 6: 627-630 (1958). In German. Through BCIRA 38: 601 (1958). (4470)

A description is given of the Rüti multi-layer dryer, provided with a multi-motor drive and a new warp-beaming mechanism for obtaining full warp beams and, consequently, longer running of the warp on the loom with an absolutely uniform warp tension. The most convenient feature is the use of a lifting device, by means of which the full warp beam can be removed and the empty beam inserted.

WEAVING C 2

DIEDERICHS LOOM WITH FOUR SHUTTLES. Industrie Textile: 199-209 (Mar. 1958). In French. Through BCIRA 38: 602 (1958). (4471)

The movement of the boxes and means for control are described, and an example is given to explain the mechanism.

JACQUARD MECHANISM WITHOUT HARNESS. J. Cordat. Industrie Textile: 362-365 (May 1958). In French. Through BCIRA 38: 602 (1958). (4472)

The machine, whose mechanism is described, makes it possible to increase the speed of the loom by 50% and to weave wider jacquard fabrics. The lifting wires are controlled exclusively by guide rods mounted so as to move to and fro in their length direction. Reproduction of the design or its reduction to a certain proportion is effected by these guide rods.

FORTUNA REED. Melliand Textilber. 39, No. 7: 750 (1958). In German. Through BCIRA 38: 603 (1958). (4473)

The new Fortuna reed (Klaas de Vries, Bocholt/Westf.), with its dent embedded firmly in rubber, is so elastic that even a frontal impact on several dents causes no damage and makes them return to their initial position. Other advantages are: smooth passage of the warp threads, reduction in end breakages, durability of the reed, and improved appearance of the fabric.

SOURCES OF FAULTS IN JACQUARD MACHINES. O. Reiter. Melliand Textilber. 39, No. 6: 622-626 (1958). In German. Through BCIRA 38: 602 (1958). (4474)

Faults occurring in single warp threads, and recurring periodically or continuously and repeatedly, causing faulty lifting of several warp threads are reviewed and their causes are discussed.

DEVELOPMENT OF AUTOMATIC WEFT REPLENISHING ON DOUBLE LOOMS WITH TWO SHUTTLES. H. Osswald. Melliand Textilber. 39, No. 6: 615-618; No. 7: 746-749 (1958). In German. Through BCIRA 38: 602 (1958). (4475)

The development of automatic double looms, in which two shuttles arranged above each other operate simultaneously, is reviewed, with descriptions of and references to various constructions of automatic bobbin changing looms and double shuttle looms.

BRRA MILL SURVEYS: WHICH LOOM TO INSTALL? Brit. Rayon Research Assoc. Man-Made Textiles 35: 51, 53-54 (Oct. 1958). (4476)

General findings of surveys made on weaving sheds equipped with automatic looms to obtain information of value to management in automatic loom selection. Table.

TROUBLE SHOOTING BOX LOOMS. G. Williams. Textile Inds. 122: 121-122 (Nov. 1958). (4477)

Six of the most frequent causes for flagging box looms are discussed. Photographs.

INSERTION OF WEFT THREADS IN SHUTTLELESS WEAVING MACHINES. H. Kirchenberger. Melliand Textilber. 39, No. 6: 619-621 (1958). In German. Through BCIRA 38: 602 (1958). (4478)

The new systems of weft insertion (gripper, gripper shuttles, compressed air, or water) are reviewed, with reference to their application in the Gabler, Ancet-Fayolle, Ripamonti, Thoumire, Dewatex, Sulzer, Neumann, Seaton, Kovo, and Mutter weaving machines.

SULZER WEAVING MACHINE AND MODERN WEAVING. M. Steiner. Textile J. Australia 33: 530-532, 534-539 (July 21, 1958). (4479)

Development, performance, maintenance, application, productivity, mill trials, etc. Photographs. Tables. Graphs. Diagrams.

PAPER INDICATING PATTERNS FOR DOBBY LOOMS. R. A. Sharpe (Crompton & Knowles Corp.). Textile Bull. 84: 62, 64-66 (Oct. 1958). (4480)

A device for indicating dobby looms, using paper patterns, which is installed as an attachment on conventional dobby heads is described. General savings realized from using paper indication are: fewer dobby chain materials, no box chain materials, no multiplier chain materials, and elimination of box motion multiplier chain. Another advantage is the elimination of human errors in building dobby chains. Photographs.

KEEPING LAY GUIDES ALIGNED. Textile World 108: 58, 158, 161 (Nov. 1958). (4481)

The lay guide plays an important part by preventing side lash of the loom lay. Pointers for the correct adjustment and maintenance of the guide and followers are given. Photograph. Diagram.

SHUTTLE BRAKE ON THE METISSA LOOM. Industrie Textile: 115-116 (Feb. 1958). In French. Through BCIRA 38: 502 (1958). (4482)

A description is given of a hydraulic shuttle brake, which is claimed to reduce the wear of shuttles without the necessity of using special means for engaging and disengaging the shuttle in the box.

GOAL OF QUALITY CONTROL. G. Malone (Exposition Cotton Mills Co.). Textile Inds. 122: 131-133, 135-137 (Nov. 1958). (4483)

The following are discussed as essential to the setting up of a quality control program in a weaving mill: cloth quality grading system, tracing faulty work to source, incentives, employee training, and a maintenance system.

KNITTING C 3

KNITTING MACHINE VS LOOM. J. B. Lancashire. Hosiery Times 31: 13-15 (Oct. 1958). (4484)

The most recent incursions of knitgoods into fields originally belonging primarily to weaving are discussed.

SOME BASIC KNITTED STRUCTURES. R. W. Mills. Hosiery Times 31: 63-65, 92 (Oct. 1958). (4485)

The following loop structures are described and illustrated: single and compound tuck stitches, 1 x 1 cross and straight laid-in effects, lace or transfer stitch, and 2-color flat stitch.

LATEST DEVELOPMENTS IN KNITTING MACHINERY. J. B. Lancashire. Textile Recorder 76: 138-140 (Nov. 1958). (4486)

Developments since the last International Textile Machinery Exhibition in Leicester (1956) are discussed. Photographs.

EFFECT OF YARNS AND METHODS ON STRETCH SOCKS. Textile World 108: 56-57 (Nov. 1958). (4487)

On the basis of laundering tests made by the U. S. Army on stretch socks made from nylon/wool and nylon/cotton, it was found that torque yarns give greater elongation than nontorque yarns, plating or plying yarns gives better results than using core yarns, and chlorination treatments affect all stretch socks. Graphs.

FABRICS C 4

NONWOVEN FABRICS. A. Buzelin. Teintex 23, No. 4: 245-263 (1958). In French. Through BCIRA 38: 564 (1958). (4488)

The theory of cortical asymmetry explaining the felting of wool makes it possible to consider the manufacture of nonwoven fabrics by felting various fibers whose structure has been previously modified. The three essential phases in this manufacture are studied: preparation of the fiber web, bonding of the fibers, and finishing treatments. Some examples of manufacture are given, properties and uses of the fabrics are listed, and the development and future prospects of nonwoven fabrics are pointed out. An extensive bibliography is appended.

NONWOVENS: WHERE THEY STAND TODAY. PART 1. H. E. Shearer (Am. Viscose Corp.). Modern Textiles Mag. 39: 31-32, 44-47 (Nov. 1958). (4489)

This review includes information on the fibers and binders used in nonwoven fabrics, as well as machine arrangements used for forming the basic web structure. Diagrams.

ORNAMENTATION OF APPAREL FABRICS: HOW TO DESIGN WARP CLIP SPOTS. V. Lobl. Modern Textiles Mag. 39: 37-40 (Nov. 1958). (4490)

The construction, patterning, spacing, and shearing of warp clip spots are described. The construction and operation of the loop cutter and shearer used are described. Photographs.

WOVEN GLASS FABRICS FOR FILTRATION. Man-Made Textiles 35: 57 (Oct. 1958). (4491)

Some advantages and disadvantages of glass fabrics for filter purposes are noted.

WEAR STUDY OF THE SERVICEABILITY OF A MINIMUM CARE GARMENT. PART 1. SUBJECTIVE EVALUATION. M. A. Morris and B. Wilsey (Univ. of Calif.). Textile Research J. 28: 881-887 (Oct. 1958). (4492)

The serviceability of a minimum care type garment was studied. Men's slacks made from 65% Dacron and 35% rayon fabric were worn a total of 750 hr. After every 150 hr of wear, half of these garments were drycleaned and half home-laundered. The garments were evaluated by both the wearers and members of the research staff after each wear period and after each cleaning. The slacks were found to be generally serviceable after wear and cleaning. The drycleaned and pressed garments were consistently rated as having a better appearance than the laundered and pressed garments. It was necessary to press the laundered slacks before they were acceptable for wear. Tables. 4 references.

WEAR STUDY OF THE SERVICEABILITY OF A MINIMUM CARE GARMENT. PART 2. LABORATORY EVALUATION. M. A. Morris and B. Wilsey (Univ. of Calif.). Textile Research J. 28: 887-891 (Oct. 1958). (4493)

Physical measurements were made on a minimum care Dacron and rayon blended fabric to determine the effect of maintenance and wear on serviceability. The fabric had been worn and home laundered, worn and commercially drycleaned, and commercially drycleaned without wear. Physical changes in the fabric, as measured in the laboratory, were generally consistent with an earlier subjective evaluation of the fabric. Physical characteristics of the fabric, with the exception of stiffness and abrasion, showed only slight changes. Tables. 6 references.

FAULTLESS PRODUCTION OF POPLIN FABRICS. R. Hünlich. Melliand Textilber. 39, No. 5: 506-508 (1958). In German. Through BCIRA 38: 564 (1958). (4494)

Types of defects (streaks in warp and weft direction) and their causes (loose reeds, shaft movement, size of shed, unclean warp stop motion, arrangement of the separating rods for the warp threads during shed formation, type of loom, and weave) are reviewed and directions for their elimination are given.

WOVEN FABRIC STRUCTURE: SATEEN DERIVATIVES. D. C. Snowden. Man-Made Textiles 35: 58 (Oct. 1958). (4495)

TECHNOLOGY OF TUFTING. PART 2. H. Sneyd and G. Forshaw. Man-Made Textiles 35: 129-133 (Oct. 1958). (4496)

The finishing, choice of backing fabric, and the properties and uses of manmade fibers in tufted carpet pile yarns are discussed.

MANUFACTURE OF ORLON BLANKETS. R. C. Schechinger (E. I. du Pont de Nemours & Co.). Modern Textiles Mag. 39: 35-36, 51, 53 (Nov. 1958). (4497)

Recommendations are given for proper selection of staple, yarn twist, yarn size, construction, weave type, and finishing procedure for Orlon blankets. Tables.

FACE-TO-FACE WILTON CARPET WEAVING. A. Crossland. Textile Inds. 122: 138-143 (Nov. 1958). (4498)

The weaving of Wilton carpets on Wilson & Longbottom looms is described in detail. Diagrams.

FINISHING AND CHEMICAL PROCESSING D

DYEING AND FINISHING PILE RUGS. Dyer 120: 636-639 (Oct. 24, 1958). (4499)

Discusses techniques for dyeing mohair and wool rugs on a jute or cotton backing and the effects of adding manmade fibers to the pile, the dyeing of jute and cotton pile rugs, stencil printing, and finishing processes.

DYEING AND FINISHING DACRON TYPE 64 POLYESTER FIBER. E. I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 114-135 (Sept. 1958). (4500)

The paper discusses: classes of dyes recommended for Dacron 64 (disperse, disperse-developed black, and cationic dyes); recommended dyeing methods (aqueous, high temperature aqueous, and aqueous dyeing with a carrier); and finishing procedures (spot removal, scouring, crabbing, fulling, heat-setting, singeing, resin finishing, and carbonizing).

CHEMICAL PROCESSES D 1

WASH-AND-WEAR: NEW DIMENSION IN TEXTILES. Textile Inds. 122: 84-114 (Nov. 1958). (4501)

This special report on wash-and-wear finishes includes the following articles: What is wash-and-wear?, by P. J. Fynn, p. 86-89; Wash-and wear: progress and problems, by J. D. Reid, R. M. Reinhardt, B. M. Kopacz, and L. A. Fiori, p. 90-98; Wash-and-wear: past, present, and future, by R. D. Wells and F. K. Burr, p. 99-102; Wet soiling of resin-treated fabrics, by D. D. Gagliardi and F. B. Shippee, p. 103-107, 114; Efficient plant layout for resin finishing, p. 108-109; How Bradford controls wash-and-wear, p. 110-114.

MODIFICATION AND IMPROVEMENT OF CHEMICAL AND PHYSICAL PROPERTIES OF COTTON. P. Bouvier. Industrie Textile: 373-377 (May 1958). In French. Through BCIRA 38: 608 (1958). (4502)

Literature referring to chemical modification of cotton fibers is reviewed, with special reference to wash-and-wear finishes.

FLAMEPROOFING OF TEXTILES FROM NATIVE AND REGENERATED CELLULOSE. E. Frieser. Melliand Textilber. 39, No. 7: 795-800; No. 9: 1034-1035 (1958). In German. Through BCIRA 38: 609 (1958). (4503)

In this review, the author discusses the behavior of cellulosic fibers during burning, the chemicals used in flameproofing, the theory of flameproofing, and problems associated with the use of flameproofing agents. 69 references.

FATE OF THIOGLYCOLLIC ACID IN WOOL DURABLY CREASED WITH THIOGLYCOLLATE. P. H. Springell (Wool Textile Research Labs., CSIRO, Australia). Textile Research J. 28: 874-878 (Oct. 1958). (4504)

When applied to woolen fabrics by a process similar to the Si-Ro-Set process, thioglycollate is retained on steam ironing, washed out in part with water without loss of crease, and almost completely removed by sulfide, sulfite, and alkaline cyanide (but not by urea or lithium bromide) in the cold, also without loss of crease. The thioglycollate is probably present in a free (possibly as dithiodiglycollate) and mixed disulfide form in the treated fabric. Less than 8% of the total half-cystine + cysteine residues of the wool are involved in the mixed disulfide formation. The thioglycollate plays no part in the retention of the crease. Graph. Tables. 11 references.

ZESET MC FABRIC STABILIZER. E.I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 108-113 (Sept. 1958). (4505)

Zeset MC is a new thermosetting resin finish designed to produce durable crease resistance and dimensional stabilization on cotton and rayon fabrics, with improved resistance to damage caused by chlorine retention. Its properties and its application to fabrics are described in detail.

EFFECT OF CREASEPROOFING ON CREASE RECOVERY. W. Wegener. Melliand Textilber. 39, No. 6: 671-678 (1958). In German. Through BCIRA 38: 608 (1958). (4506)

The effect of various Knittex (finishing agent) concentrations on the crease-recovery ability of cuprammonium rayon and viscose rayon fabrics is examined by determining the time/crease-recovery angle curves for seven different crease positions, taking also into account the opening process directly after relaxation. The use of 100 g/l Knittex was found to improve considerably the crease-recovery properties as compared with the untreated fabric; higher concentrations gave a further improvement only in viscose rayon fabrics but improved relatively little the results obtained for cuprammonium rayon. For all concentrations, the cuprammonium rayon fabrics showed better abrasion resistance than viscose rayon fabrics. Mean time/crease-recovery angle curves are determined, which show no dependence upon the position of the crease. The degree of completeness of the crease recovery, expressed by the quotient of the area below the time-dependent crease-recovery angle curve and the corresponding area of the ideal crease recovery, characterizes the crease recovery during the observation. It is discussed in dependence of the crease position and the Knittex concentration, with reference to the mean time/crease-recovery angle curves.

MIXED BLEACHING WITH HYPOCHLORITE AND PEROXIDE. Industrie Textile: 311-312 (Apr. 1958). In French. Through BCIRA 38: 605 (1958). (4507)

Comparison is made between the Solvay continuous and discontinuous bleaching systems and the Ce-Es process (Butzn, Deutschele & Simon) used mainly for knitted goods, with special reference to Terylene fabrics, to be subsequently dyed at high temperatures with disperse dyes.

SOME NEW PRACTICAL PROCESSES FOR IMPROVING PERFORMANCE CHARACTERISTICS OF WOOL FABRICS. G. Laxer (Wool Bur., Inc.). Can. Textile J. 75: 43-46, 49 (Oct. 31, 1958). (4508)

The permanent mothproofing of wool with Dieldrin and its durable creasing and pleating by the Si-Ro-Set process are discussed in detail.

TOPOCHEMICAL MECHANISMS INVOLVED IN THE PREPARATION AND DEACETYLATION OF PARTIALLY ACETYLATED COTTONS. A. V. Bailey, E. Honold, and E. L. Skau (So. Reg. Research Lab.). Textile Research J. 28: 861-873 (Oct. 1958). (4509)

Iodine sorption and moisture sorption data and some density, x-ray, and infrared data have been obtained on partially acetylated (PA) cottons before and after progressive deacetylation with 2 N hydrochloric acid or with N/2 sodium hydroxide. The properties of the original PA cottons differed markedly from those of the same acetyl content obtained by deacetylation. The properties depended further upon the reagent used for deacetylation and on the acetyl content before deacetylation. Graphs. Tables. 24 references.

NEW RESINS FOR OLD IN THE FINISHING OF WOOL MATERIALS. A. J. Hall. Textile Recorder 76: 144-146 (Nov. 1958). (4510)

The mechanism of action of polyamide-epoxide resins in shrinkproofing wool is explained and illustrated by the reaction of a mixture of Versamid 115 (polyamide resin) and Epon 562 (epoxide resin) with wool. Graphs.

SHRINKPROOF FINISHING. F. Duhm. Melliand Textilber. 39, No. 7: 784-790 (1958). In German. Through BCIRA 38: 608 (1958). (4511)

Experiments are described in which half of the fabric samples were subjected to mechanical shrinking and the other half to chemical shrinkproofing with Lyofix CH. The results are summarized, showing that no loss in length occurs after the Lyofix CH-treatment, the washfastness of dyeing is improved, the shape stability and handle are satisfactory, the tensile strength and abrasion resistance are not impaired, and the dirt adheres less to the Lyofix CH-finished fabrics. The chemical finish can be combined, in special cases, with mechanical shrinking; a maximum of 40 g/l Lyofix CH is recommended for this purpose.

IMPROVEMENTS IN SIZING AND FINISHING WITH A NEW RANGE OF STARCH PRODUCTS. Man-Made Textiles 35: 167, 169 (Oct. 1958). (4512)

The principal characteristics of amylose and amylopectin (prepared by the fractionation of potato starch), and their applications in textile sizing and finishing, are described. Graph.

FINISHING OF FABRICS MADE FROM BLENDS OF ORLON WITH OTHER FIBERS. G. E. Woodside (du Pont Co. of Can. Ltd). Can. Textile J. 75: 39-41 (Oct. 31, 1958). (4513)

Techniques for finishing fine gage Orlon blend jersey and woven fabrics of Orlon/wool and Orlon/cellulose are outlined.

EFFECT OF WATERPROOFING ON THE PHYSIOLOGICAL BEHAVIOR OF TEXTILES IN GARMENTS. F. W. Behmann. Melliand Textilber. 39, No. 7: 786-790 (1958). In German. Through BCIRA 38: 609 (1958). (4514)

The thermal interaction between human skin and clothing is discussed and it is shown that, by artificial waterproofing, penetration of the moisture into the fabric is completely prevented so that, by eliminating capillary moisture transport, the effective resistance to heat in a cold environment increases. This is favorable for rainwear but has an adverse effect in other garments where, even at moderate perspiration, the water absorbability is exceeded and the perspiration, which does not evaporate, accumulates as a continuous film between skin and fabric.

SCOURING OF WOOL/TERYLENE CLOTHS. Wool Inds. Research Assoc. Textile Merc. 139: 629-630 (Oct. 31, 1958). (4515)

The addition of a scouring assistant to wool/Terylene yarn during processing facilitates the removal of combing oil during scouring.

IODINE SORPTION VALUES OF SOME CHEMICALLY MODIFIED COTTONS. A. V. Bailey, E. Honold, and E. L. Skau (So. Reg. Research Lab.). (Letter to the editor). Textile Research J. 28: 895-896 (Oct. 1958). (4516)

DYEING AND PRINTING D 2

PROBLEM OF REPEATED CHANGE OF SHADE DURING REDUCTION AND OXIDATION PROCESSES OF NEW AND KNOWN VAT DYES. W. Ried, A. Schaeffer, and W. Hensel. Melliand Textilber. 39, No. 7: 780-784 (1958). In German. Through BCIRA 38: 606 (1958). (4517)

The phenomenon of repeated shade change observed in Indanthrene Bordo B, Grelanon Yellow G, and Indanthrene Scarlet GG and their derivatives during reduction or oxidation processes was investigated by examining their behavior, spectrochemical properties (infrared spectra), and redox potentials. The results are discussed and a table is given listing 22 dyes, their chemical formulas, redox potentials, and shade change. The reaction mechanism during the redox process is interpreted.

THERMOSOL PROCESS FOR DYEING BLENDS OF DACRON POLYESTER FIBER AND CELLULOSICS. E. I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 145-146 (Sept. 1958). (4518)

The Thermosol continuous dyeing process is especially suitable for use in dyeing blends of Dacron and cotton. It consists of padding a dye dispersion and then subjecting the padded material to a high temperature for a relatively short time to fix the dye in the fiber. Disperse dyes recommended for application by the Thermosol process are given.

USE OF UREA TO IMPROVE EXHAUSTION OF CATIONIC DYES ON ACRILAN. E. I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 151-152 (Sept. 1958). (4519)

FIBER BLENDS: SHADE MATCHING. E. I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 136-144 (Sept. 1958). (4520)

Formulations and procedures for cross-dyeing to contrasting or union shades in Dacron/cotton/Orlon blends with or without nylon, and for reserving one fiber in a blend, are suggested as guides for mill applications.

DIFFERENCES IN DYEING BEHAVIOR BETWEEN POLYESTER AND POLYAMIDE FIBERS. J. Pardonnet Industrie Textile: 309-310 (Apr. 1958). In French. Through BCIRA 38: 607 (1958). (4521)

An attempt is made to elucidate the differences between the dyeing properties of polyamide and polyester fibers, the "dyeing inertia" of the latter being attributed to the absence, in the polyester macromolecule, of chemical groups that are able to react with the dyes, to its highly hydrophobic nature (moisture regain, at 65% rh, 0.2-0.6% as compared with 4% in polyamide fiber), to the higher degree of crystallinity, and to the skin-and-core structure of the fiber. In order to improve the dyeability of polyester fibers, it is necessary to render them as hydrophilic as possible, to open the pores on the fiber surface, to select low-molecular dyes soluble in the esters, and to increase the kinetic energy of the dyes during their fixation on the fiber. Special reference is made to the use of carriers and to "brightening" treatment by reduction.

SOLIDEGAL GL: ITS USE AND EFFECT IN DYEING WITH INDANTHRENE DYES. E. Scheel and H. Musshoff. Melliand Textilber. 39, No. 6: 643-652 (1958). In German. Through BCIRA 38: 606 (1958). (4522)

This leveling agent prevents, even in the vat, the aggregation of dye particles and promotes disintegration during the dyeing process. The large molecules and agglomerations lose their inertia and move considerably faster to give a very good leveling effect and general improvement of the dyeing properties of Indanthrene dyes. Other properties of Solidegal GL are also enumerated and its application in pigment dyeing and dyeing at staggered temperatures (or combination of both processes) are described, with reference to various methods used.

DYEING OF CELLULOSE ACETATE WITH DISPERSE DYES. PART 7. COMPARISON WITH THEIR SOLUBILITY IN ORGANIC SOLVENTS. C. L. Bird (Leeds Univ.). J. Soc. Dyers Colourists 74: 688-693 (Oct. 1958). (4523)

The well known parallel between the solubility of disperse dyes in certain organic solvents and their suitability for dyeing secondary cellulose acetate has been examined. It is shown that, at room temperature, a close relationship is obtained only by using a solvent containing an appreciable amount of water, e.g. 20% aqueous diethylene glycol diacetate. Graphs. Tables. 9 references.

ELEMENTARY RULES FOR SUCCESSFUL PRINTING WITH AZO DYES FORMED ON THE FIBERS. C. Smith. Industrie Textile: 379-381 (May 1958). In French. Through BCIRA 38: 607 (1958). (4524)

Properties of Brenthol dyes and Brentamine fast salts and bases are discussed and directions are given for their use in printing.

PRESENT TRENDS IN THE DYEING AND PRINTING INDUSTRIES IN THE U.S.S.R. C. Weimann. Teintex 23, No. 4: 265-269; No. 6: 416-428 (1958). In French. Through BCIRA 38: 566 (1958). (4525)

The author reviews the main problems discussed in the Soviet technical press during 1956 and 1957; in particular: the use of new synthetic fibers, dyeing of cellulosic, wool, and union fabrics, printing with vat dyes, and the development of new dyes.

DYEING OF WOOL/POLYESTER BLENDS WITH PALANIL DYES. A. Würz. Melliand Textilber. 39, No. 5: 530-540 (1958). In German. Through BCIRA 38: 567 (1958). (4526)

Dyeing of wool/polyester blends with Palanil dyes and the effect of dyeing time on the distribution of the dye between the polyester fiber and the wool component are examined to ascertain to what extent the individual dyes of this series are absorbed on the wool. The effects of accelerators and other dye assistants are also investigated, and a list of suitable Palanil dyes is given.

CONTRIBUTION TO THE DYEING OF ACRILAN. E. Hartmann and A. Mikula. Reyon, Zellwolle u. Chemiefasern No. 7: 529-531 (1958). In German. Through BCIRA 38: 567 (1958). (4527)

Suitable acid, metal-complex, chromable, and Artisil dyes are enumerated, and directions are given for their application to Acrilan alone (piece, hank, etc.) and to mixed fabrics containing Acrilan/wool and Acrilan/cellulose fiber, respectively. The addition of Lyogen P to the dyebath (or pretreatment of the Acrilan fiber with it) gives purer, brighter dyeings with distinctly higher lightfastness.

SOME RECENT DEVELOPMENTS IN DYEING FOR THE CARPET TRADE. W. Beal (Geigy Co. Ltd). J. Soc. Dyers Colourists 74: 677-682 (Oct. 1958). (4528)

The large-scale introduction of synthetic fibers into the carpet trade has caused many dyeing problems. The way in which these problems are being overcome is reviewed together with developments which have been taking place in dyeing for all-wool pile carpets. Graphs. 12 references.

FLEXIBLE TUBES FOR DYEING YARN PACKAGES. M. Juric. Tekstil 7, No. 7: 577-584 (1958). In Serbocroat. Through BCIRA 38: 607 (1958). (4529)

Various types of flexible tubes for yarn packages (compressible axially and radially, respectively) are described and their advantages over rigid perforated dyeing tubes, made of Nickelin, stainless steel, or impregnated cardboard, are pointed out.

ILMA HIGH-TEMPERATURE AND STATIC PRESSURE DYEING EQUIPMENT. Industrie Textile: 125-128 (Feb. 1958). In French. Through BCIRA 38: 506 (1958). (4530)

The equipment constructed by the Italian firm Ilma (Schio) consists of a series of machines, operating at static pressure and high temperature, for dyeing conical or cylindrical cheeses, warp beams, wadding, cakes, fabrics, and hanks and for laboratory tests. The characteristics of these machines are described.

PIGMENT DYEINGS OF PIECE GOODS WITH IMPERON DYES. G. Weckler. Melliand Textilber. 39, No. 6: 652-658 (1958). In German. Through BCIRA 38: 606 (1958). (4531)

Dyeing with pigment dyes of the Imperon type (pretreatment of the fabric, preparation of the dyebath, padding, drying, and fixing) is described and the handle of the dyed fabric, subsequent waterproofing, solvent-resistant dyes, dischargeability, stripping of Imperon dyeings, their fastness properties on cotton and polyester fabrics, and applicability of the Imperon process are discussed.

ELREPHO PHOTOMETER IN DYEING. U. Einsele and H.-M. Holz. Industrie Textile: 123-125 (Feb. 1958). In French. Through BCIRA 38: 506 (1958). (4532)

The mechanism of the electrophotometer provided with seven colorimetric filters for measuring the diffuse reflection of dyeing is described. The filters make it possible to define a color accurately according to the trichromatic colorimetric method by indicating the position of the color in the international standard color triangle. By plotting the different curves for diffuse reflection of a dye at increasing concentration as a function of time, it is also possible to determine directly the quantity of dye to be added to that which is already on the fiber, as well as to predict the time necessary for the operation.

ADSORPTION AT ORGANIC SURFACES. PART 4. ADSORPTION OF SULFONATED AZO DYES BY CHITIN FROM AQUEOUS SOLUTION. C. H. Giles, A. S. A. Hassan, and R. V. R. Subramanian (Royal Coll. of Science & Technol., Glasgow). J. Soc. Dyers Colourists 74: 682-688 (Oct. 1958). (4533)

Lobster-shell chitin has been used in quantitative adsorption studies with sulfonated azo dyes in aqueous solutions, mainly under acid conditions. The extent of adsorption has been correlated with the dye structures. The mechanism of adsorption appears to be largely one of physical association between the aromatic residues of the dye and the molecular chains of the chitin, hydrogen bonding in acid solutions being unimportant. When inorganic acid is present, one sulfonate group in the dye anion takes part in ion exchange with inorganic anions at the cationic centers in chitin. Additional sulfonate groups appear to remain uncombined with the substrate and to reduce the affinity of the dye. Graphs. Tables. 16 references.

CLERMONT-BONTE DYEING EQUIPMENT. Clermont-Bonte SA. Tex 23, No. 6: 431, 433 (1958). In French. Through BCIRA 38: 566 (1958). (4534)

Various types of autoclaves (high temperature, the same type with a capacity of 5-10 kg, and a horizontal autoclave for the treatment of fabrics rolled on to a perforated beam) and a hank dyeing machine are briefly described and illustrated.

UNLEVEL DYEING IN WOOL VELOUR CLOTH. F. J. Parker (Thomas Ratcliffe & Co. Ltd). J. Soc. Dyers Colourists 74: 693-695 (Oct. 1958). (4535)

It has been found that mechanical abrasion can be a cause of unlevelness in the dyeing of woolen cloth with anthraquinonoid acid dyes.

PRINTING OF TREVIRA. K. Koth. Melliand Textilber. 39, No. 6: 665-669; No. 9: 1027-1030 (1958). In German. Through BCIRA 38: 608 (1958). (4536)

A survey is made of the present position of printing Trevira (polyester) fabrics, with reference to the pretreatment of fabrics from continuous filaments (prebleaching, drying and fixing, embossing, alkalization), direct printing with disperse, Imperon, vat, Anthrasol and other dyes, and discharge printing of pure Trevira fabrics. Suitable fast dyes are pointed out, especially the new range of Samaron (disperse) dyes.

PRINTING OF BLENDS. E.I. du Pont de Nemours & Co. Dyes & Chem. Tech. Bull. 14: 147-150 (Sept. 1958). (4537)

Recommendations for printing Orlon/wool, Orlon/cotton, and Dacron/cotton or rayon are given.

MECHANICAL PROCESSES D 3

CONTROL OF THE SHEARING CYLINDER DRIVE IN FABRIC CLEANING AND SHEARING MACHINES. G. Boigs. Melliand Textilber. 39, No. 5: 554-557 (1958). In German. Through BCIRA 38: 571 (1958). (4538)

CLOTH TENSION ON THE RAISING MACHINE. R. Steidl. Melliand Textilber. 39, No. 6: 670-671 (1958). In German. Through BCIRA 38: 609 (1958). (4539)

It is shown that, in addition to other factors, the tension of the cloth on the raising cylinder has a decisive effect on the raising result obtained. This tension depends mainly upon the cloth to be treated and, in most cases, no change can be made during raising. An example is given (spun rayon fabric) to prove that a cloth that lies loosely on the raising cylinder is subjected to a greater raising action than a stretched fabric. This is due to the fact that, by reducing the tension, the fabric comes into closer contact with the pile- and counter-pile rollers and the wire points penetrate more easily and more deeply into the material so that a higher raising effect is obtained.

HOT CUTTING OF MANMADE FIBER HEAT-SEALABLE FABRICS. Industrie Textile: 297-298 (Apr. 1958). In French. Through BCIRA 38: 603 (1958). (4540)

The device described consists of an electrical resistance comprising a white-hot metal wire, which, when in contact with a tubular material, fuses it instantaneously and the two edges of the fabric open as a result of slight tension. The selvage obtained is very uniform without forming a hard ridge, and the threads are sufficiently fused to prevent fraying.

DRYING D 4

HEAT TRANSFER IN HOT-SURFACE DRYING OF PAPER. S. T. Han and T. Ulmanen. Tappi. 41, No. 4: 185-189 (1958). Through BCIRA 38: 610 (1958). (4541)

The hot-surface drying of a thick sheet of sulfite pulp has been studied. Moisture content was measured by a beta-ray transmission technique, temperature with a very fine thermocouple, and thickness of the sheet with a dial micrometer. The data obtained are analyzed with respect to heat transfer and moisture movement.

TESTING AND MEASUREMENT E

FIBERS E 1

APPLICATION OF SPOT TESTS IN THE EXAMINATION OF SYNTHETIC FIBERS. PART 1. F. Feigl, V. Gentil, and E. Jungreis (Ministério da Agricultura, Brazil). Textile Research J. 28: 892-894 (Oct. 1958). (4542)

Since some synthetic fibers contain nitrogen while others do not, a test for nitrogen provides a means of distinguishing between these classes. It has been found that nitrogen can be detected without fail in organic compounds by a new micro test using Rhodamine B. This procedure is well suited for the examination of synthetic fibers. 11 references.

YARNS E 2

PHOTO-FIL: A NEW APPARATUS FOR TESTING YARN REGULARITY. Industrie Textile: 103-104 (Feb. 1958). In French. Through BCIRA 38: 514 (1958). (4543)

The apparatus described for testing yarn regularity is based on the photographic reproduction of the blackboard wrappings on sensitive paper placed for this purpose between the threads and the board. The true replica obtained of the yarns to be examined makes it possible to study the appearance of gray, bleached, or dyed yarns on a length of from 50 to 200 m; to compare them with samples or standards such as the cotton yarn appearance standards; to render visible periodic faults by causing a moiré effect permitting the detection of the causes of this irregularity. The apparatus was developed by the Textile Institute of France and is being sold by the Soc. Lyonnaise D. A. M.

EFFECTIVE COEFFICIENT OF FRICTION FOR STRINGS TRAVERSING CYLINDERS TRANSVERSELY AND SLANTWISE. C. Mack and C. Rubenstein. Brit. J. Appl. Phys. 9, No. 6: 247-249 (1958). Through BCIRA 38: 616 (1958). (4544)

A formula is given for the effective coefficient of friction in terms of the constants of the power law of friction, the angle of wrap, and the on-going tension, for strings traversing cylinders transversely or slantwise. A table, which enables this coefficient of friction to be computed quickly and simply, is also given. Some experimental evidence for the accuracy of the formula for the slantwise case is described, while references to the experimental evidence in the transverse case are cited.

RELATIONSHIPS BETWEEN THE COEFFICIENTS OF VARIATION OF THE VARIOUS YARN PARAMETERS. A. Barella. Industrie Textile: 267-272 (Apr. 1958); 339-343 (May 1958). In French. Through BCIRA 38: 616 (1958). (4545)

The relationships between the variation coefficients of yarn mass and strength, weight per unit length and resistance to breaking, mass and diameter, and twist and mass are discussed, and methods for interpreting the regularity diagrams are reviewed. 34 references.

DEPENDENCE OF THE TENSILE STRENGTH OF FILAMENTS UPON THEIR TEST LENGTH. PART 2. A. Sippel and E.-H. Hütten. Faserforsch. u. Textiltech. 9, No. 6: 213-217 (1958). In German. Through BCIRA 38: 574 (1958). (4546)

Experiments carried out to ascertain the applicability of Weibull's tensile strength theory to continuous filaments from macromolecular substances (acetate rayon) gave negative results. Evaluation of the results led to an empirical relationship between tensile strength and test length, from which it is possible to calculate the tensile strength for the test lengths zero and infinity, the latter constituting a considerable proportion of the former.

FABRICS E 3

SIMPLE MEASURING DEVICE FOR DETERMINING THE WET CREASING ANGLE. M. Menke. Melliand Textilber. 39, No. 5: 552-554 (1958). In German. Through BCIRA 38: 578 (1958). (4547)

Construction and mechanism of the device are described. The wet creasing angle is measured by means of this device by the testing method specified for "rapid-iron" quality index.

METHODS OF TESTING TEXTILES. METHOD 45. RECOVERY FROM CREASING: ANGLE OF RECOVERY METHOD. Can. Textile J. 75: 50-51 (Oct. 31, 1958). (4548)

The procedure described may be used to measure a fabric's ability to recover from creasing (such as might occur during normal wear). Specimens of the material are creased under a standard pressure for a specified period of time, and the rate and extent to which the crease disappears after the weight has been removed is measured. Diagrams.

ON DRAPE AND MEASUREMENT OF FABRIC BUCKLING, OR THE CAPABILITY OF A FABRIC TO TAKE COMPRESSION FORCES IN ITS OWN PLANE. B. Dahlberg and T. Eeg-Olofsson. Medd. TEFO No. 2: 1-13 (1958). In Swedish (English summary). Through BCIRA 38: 577 (1958). (4549)

A simple method for recording drape diagrams is described (the position of the draping folds is related to an orthoganol system having the warp and weft directions as axes) and diagrams for 22 viscose rayon fabrics are shown. Drapability depends on the buckling properties, and a device for measuring one-dimensional buckling is described, results for the warp, weft, and 45° directions being given. It is found that the buckling behavior differs in most cases from isotropic materials having the same flexural rigidity. An attempt is made to explain the shape of the buckling curves on the basis of differences in weave.

NOTES ON THE MEASUREMENT OF FABRIC REGULARITY. A. Barella. Industrie Textile: 119-122 (Feb. 1958). In French. Through BCIRA 38: 515 (1958). (4550)

In this review of 15 literature references, the author discusses methods for measuring the fabric regularity and the relationship existing between fabric regularity and yarn regularity.

PROBLEMS IN DETERMINING DIMENSIONAL VARIATIONS OF FABRICS. J. Kiger. Industrie Textile: 301-308 (Apr. 1958). In French. Through BCIRA 38: 617 (1958). (4551)

Efforts to standardize methods for determining the dimensional stability of fabrics are discussed, with reference to mechanical washing tests at near-boiling, medium (60° C), and reduced (40° C) temperatures, ironing experiments in a flat pressing machine, wetting tests at normal temperature, and prefashioning control of manmade fiber fabrics.

COMPARISON OF THREE METHODS (SINGLE AND DOUBLE RIP) FOR THE DETERMINATION OF TEARING STRENGTH OF FABRICS. L. H. Turl (Defence Research Medical Labs., Canada). Textile Research J. 28: 839-848 (Oct. 1958). (4552)

The single-rip, wing-rip, and tongue methods for measuring the tearing strength of fabrics were examined on a comparative basis. The study confirmed the advantage claimed for the experimental principle of the wing-rip method. The essential differences among numerical values derived from the three methods are due primarily to differences in the analytical treatment of the data. It is concluded that all three methods measure the same fabric property. A single new method, comprising a combination of the experimental and analytical procedures now required by different methods, is recommended. Tables. Graphs. 3 references.

NEW METHOD FOR RECORDING THE LENGTH AND FAULTS OF PIECES OF FABRIC. N. Joubert. Industrie Textile: 129-133 (Feb. 1958). In French. Through BCIRA 38: 514 (1958). (4553)

The apparatus described consists of a recording unit placed at a certain distance from the inspecting machine, a keyboard placed within easy reach of the attendant, and a set of cams supported on one of the shafts of the inspecting machine. The recording device consists of three parts: the feeding mechanism, the counting mechanism, and the printing mechanism.

CAUSES OF BARS IN FABRICS. Industrie Textile: 283-284 (Apr. 1958). In French. Through BCIRA 38: 617 (1958). (4554)

In an investigation carried out in 67 weaving mills, three essential causes of bars in fabrics were ascertained: irregularity of the yarn, faulty functioning of the warp-unwinding system, and defective state of the fabric taking-up mechanism. Other minor mechanical faults in the loom mechanism are also enumerated.

OTHER E 4

TESTS USED AT THE DEFENCE STANDARDS LABORATORIES FOR INVESTIGATION OF THE CAUSES OF FIBER DAMAGE. F. F. Young. Textile J. Australia 33: 631-636 (July 21, 1958). (4555)

The following tests are described: Congo Red for cotton and flax; the iodine sulfuric acid test; zinc chloriodine swelling test; Kiton Red for wool; Krais Markert Viertel and Allworden reactions; fluidity; copper number; carboxylic group determination; and alkali solubility. 14 references.

TESTING METHODS FOR TEXTILE ASSISTANTS. E. Götte. Melliand Textilber. 39, No. 5: 561-563 (1958). In German. Through BCIRA 38: 579 (1958). (4556)

A method is described for determining quantitatively the washing effect of detergent raw materials and finished textile assistants on wool yarn impregnated with olive or paraffin oil by adding Ceres Violet. Comparative tests showed that olive oil is washed off to the same extent as the Ceres Violet, so that the determination of the residual fat can be carried out colorimetrically or reflectometrically. In the case of mineral-oil impregnation, colorimetric determination is not possible because the dye/mineral oil ratio does not remain constant during washing. The variations in handwashing results, in spite of specified working conditions, lead to the conclusion that the process should be mechanized to ensure a reliable test.

ADSORPTION AND DESORPTION OF CARBON BLACK ON COTTON IN AQUEOUS MEDIUM. PART 2. TESTING METHOD AND EXPERIMENTAL RESULTS. W. Strauss. Kolloid Z. 158, No. 1: 30-33 (1958). In German. Through BCIRA 38: 515 (1958). (4557)

A method for determining the desorption and adsorption curves for the cotton/carbon black system is described. Experimental results show that the phenomena examined depend upon the time, temperature, mechanical energy, pigment concentration in the liquor, and type and concentration of the detergent-active substance. The existence of true equilibria between the carbon black concentration on the fabric surface and that in the liquor in contact with this surface is of particular importance for the theoretical evaluation.

INDUSTRIAL ENGINEERING F

SAVING ON ELECTRIC-POWER BILLS. Textile World 108: 67, 154, 158 (Nov. 1958). (4558)

Pointers are given on selecting the proper power rate for a plant and improving the plant's load factor to reduce power cost.

SCIENCES G

CHEMISTRY G 1

COMPARISON OF METHODS FOR DETERMINING INTRINSIC VISCOSITIES FROM NON-NEWTONIAN VISCOSITIES. K. H. Cram and J. C. Whitwell (Princeton Univ.). Textile Research J. 28: 849-860 (Oct. 1958). (4559)

The work reported was undertaken to compare various methods used to detect small differences among the intrinsic viscosities of relatively similar samples of cotton cellulose. Values based on zero shear rate viscosities are required to avoid dependence on the viscometric procedure. Where determination of intrinsic viscosities is not the primary objective, the best method for precise differentiation among closely similar samples appears to be comparison of apparent viscosities using a single high concentration and as low a standard shear stress as practicable. Intrinsic viscosity determinations, based on non-Newtonian viscosities, are less satisfactory. Photographs. Diagrams. Graphs. Tables. 16 references.

AQUEOUS DISPERSIONS OF CARBON BLACK. H. G. Wagner (Badische Anilin & Soda Fabrik AG). Proc. Intern. Congr. Surface Activity 4: 113-118 (1957). (4560)

The sodium salt of dibutylnaphthalene sulfonic acid appears to be the most suitable dispersing agent for carbon black. Non-ionic substances can also be used for this purpose. Dispersions of carbon black prepared under optimum conditions with anion-active dispersing agents are capable of incorporating a certain proportion of the carbon black in a wash-fast form in cotton fibers. If washing is carried out with insufficient quantities of soap or other anion-active detergents in low concentration, it is possible that the optimum dispersing effect is achieved, which would then cause the goods to become gray. This gray cannot be removed by subsequent normal washes. Table. 7 references.

SOME INTERFACIAL EFFECTS OF CALCIUM IONS IN DETERGENCY. A. S. Porter (Albright & Wilson Ltd). Proc. Intern. Congr. Surface Activity 4: 103-112 (1957). (4561)

Results are given showing some of the ways in which calcium adsorption at the dirt/solution and fabric/solution interfaces can affect the washing of fabrics with anionic synthetic detergents. It is concluded that calcium ions adsorbed at the interface between dirt particles and a detergent solution hinder detergency under domestic laundering conditions. Adsorption of calcium at the fabric/solution interface results in the transfer of calcium from rinse water to the next wash liquor, which can be rendered sufficiently hard to interfere with detergency, even when soft water is used for all treatment. Tables.. Graphs. 16 references.

PARTICLE SIZE AND DETERGENCY. T. H. Shuttleworth and T. G. Jones (Unilever Ltd). Proc. Intern. Congr. Surface Activity 4: 52-59 (1957). (4562)

This paper describes an attempt to relate the behavior of particulate soil in the detergency process to its particle size characteristics determined on the actual system. Graphs. Tables. Photomicrographs. 13 references.

STUDY OF THE MECHANICAL PROPERTIES OF CELLULOSE FIBERS WITH LOW MOISTURE CONTENT. Z. I. Suleimanova and V. A. Kargin. Kauch. i Rezina 16, No. 12: 18-22 (1957). In Russian. Through BCIRA 38: 572 (1958). (4563)

The authors investigate the mechanical properties of natural and artificial cellulose fibers as a function of their relative moisture content.

INFLUENCE OF INTERFACIAL ELECTRICAL CONDITIONS ON THE DEPOSITION OF SOIL PARTICLES ON TO COTTON FROM DETERGENT SOLUTIONS. K. Durham (Unilever Ltd). Proc. Intern. Congr. Surface Activity 4: 60-69 (1957). (4564)

An investigation was made of the relation between interfacial electrical conditions of a system soil/fiber/detergent solution and the stability of this system against deposition of soil on to fibers. In particular, the influence of materials commonly employed as builders in detergent systems on the stability of dispersions of pigments in detergent solutions was studied. Graphs. Tables. 11 references.

PHYSICS G 2

PROBLEM OF VISUAL TOLERANCES. P. Mougeot. Tex 23, No. 6: 404-415 (1958). In French. Through BCIRA 38: 591 (1958). (4565)

Tests, carried out with a view to comparing (1) various formulas proposed for measuring small color differences (with examples of their application) and (2) results obtained by visual observations of persons with normal color vision are discussed to show the difficulties encountered and the complexity of this problem. It is hoped to simplify the problem of determining visual tolerances by adapting to the study of surface colors a color comparator, such as that constructed by the Optical Institute.

MISCELLANY H

GREENVILLE SHOW, 1958: HIGHLIGHTS OF THE 20TH SOUTHERN TEXTILE EXPOSITION. Textile World 108: 45-52, 150 (Nov. 1958). Textile Bull. 84: 33-48 (Oct. 1958). (4566)

INTERNATIONAL TEXTILE MACHINERY EXHIBITION, BELLE VUE, MANCHESTER, 15-25 OCTOBER 1958. Fibres 19: 307-320 (Oct. 1958). Dyer 120: 555-581 (Oct. 10, 1958). Skinner's Silk & Rayon Record 32: 1073-1093 (Oct. 1958). Textile Recorder 76: 115-172 (Oct. 1958); 151-238, 275-292 (Nov. 1958). Textile Weekly 58(2): 855-912 (Oct. 10, 1958). Textile Merc. 139: 5-105 (suppl., Oct. 17, 1958); 616-619, 642-643 (Oct. 31, 1958). Hosiery Times 31: 25-61 (Oct. 1958). Man-Made Textiles 35: 63-113 (Oct. 1958). Textile Mfr. 84: 29-84 (suppl., Oct. 1958). (4567)

RESEARCH AND TEXTILE MACHINERY. L. H. C. Tippett (Brit. Cotton Ind. Research Assoc.). Textile Merc. 139: 549-550 (Oct. 17, 1958). (4568)

The vital part which research plays in the development of textile machinery is briefly noted.

RECENT TRENDS IN LINEN AND JUTE MANUFACTURING PRACTICE. S. A. G. Caldwell. Textile Mfr. 84: 23-28 (suppl., Oct. 1958). (4569)

RESEARCH AND TECHNICAL DEVELOPMENTS IN COTTON SPINNING AND WEAVING. A. Croasdale. Textile Mfr. 84: 17-22 (suppl., Oct. 1958). (4570)

Progress in opening, blending, carding, dust control, drafting and spinning, waste separation systems, yarn preparation and sizing, winding, weaving, and testing methods and instruments is reviewed. Photographs.

PROGRESS AND PROSPECTS IN THE WOOL TEXTILE INDUSTRY. Wool Inds. Research Assoc. Textile Mfr. 84: 1-6 (suppl., Oct. 1958). (4571)

A review of developments in methods of testing for yarns and fabrics, woolen processing, wool scouring and combing, worsted drawing and spinning, weaving on automatic and nonautomatic looms, and new techniques in dyeing and finishing.

PATENT CHECKLIST

U.S. patents may be obtained from the U.S. Patent Office, Washington, 25, D.C., for 25¢ a copy. Photostatic copies of foreign patents are also available. Charges for these photostats are based on the number of pages in the patent.

YARN PRODUCTION B

SPRAYING APPARATUS. G. Calamai (Italy). BP 799 711, Aug. 13, 1958. Through BCIRA 38: 600 (1958). (4572)

The apparatus is fitted with compression systems and valves, the compressed gas being used in mixing the oil and water and in conveying the emulsion to the spraying nozzle. Thermostatically-controlled electric heating is also provided.

MANMADE FIBERS FROM POLYMERIC FILMS. J. E. Costa, E. W. Le Boeuf, and L. E. Lefevre (to Dow Chem. Co.). USP 2 853 741, Sept. 30, 1958. (4573)

A unilaterally oriented film of a synthetic polymer is shredded into a continuous tow of fibers in such a way that the individual fibers are physically connected at random intervals. The tow may be twisted into a yarn without further processing. This yarn has the hand of a yarn made from staple fibers.

COTTON WEIGHING MACHINE. W. O. Thompson. USP 2 854 227, Sept. 30, 1958. (4574)

Apparatus for elevating cotton bales, freely suspending the bales for weighing, and then lowering them.

CRIMPING METHOD AND APPARATUS FOR CELLULOSIC FIBERS. L. W. Rainard (to Joseph Bancroft & Sons Co.). USP 2 854 701, Oct. 7, 1958. (4575)

Permanent crimp of the sawtooth type is effected in a stuffer crimper by impregnating the fibers with a resin prior to crimping and curing the resin by heat while the fibers are held compacted in the crimping chamber.

STUFFER CRIMPING APPARATUS FOR CONTINUOUS FILAMENT YARN AND TOW. L. W. Rainard and E. H. Shattuck (to Joseph Bancroft & Sons Co.). USP 2 854 728, Oct. 7, 1958. (4576)

STUFFER CRIMPING APPARATUS FOR CONTINUOUS FILAMENT YARN OR TOW. C. J. Russo and H. A. Sinski (to Joseph Bancroft & Sons Co.). USP 2 854 729, Oct. 7, 1958. (4577)

Means for cooling crimped yarn prior to discharge.

METHOD FOR PACKAGING A CONTINUOUS STRAND. W. W. Drummond (to Owens-Corning Fiberglas Corp.). USP 2 854 731, Oct. 7, 1958. (4578)

Collection apparatus for forming pile packages at high rates of speed in association with existing strand-supplying equipment.

APPARATUS FOR CRIMPING CONTINUOUS ARTIFICIAL FILAMENTS. N. E. Klein (to Deering Milliken Research Corp.). USP 2 856 640, Oct. 21, 1958. (4579)

Means for applying pressure to the feed rolls of a stuffer crimper.

NONCORROSIVE LUBRICANT FOR CELLULOSE ACETATE FIBERS. H. H. Hall (to Am. Viscose Corp.). USP 2 857 330, Oct. 21, 1958. (4580)

The lubricant claimed consists of a mineral oil base containing, as an antistatic agent, a quaternary ammonium compound and, as a corrosion inhibitor, an ethylene oxide adduct of a hydrocarbon alkylene diamine.

OPENING, PICKING, FIBER PREPARATION B 1

COTTON OPENER AND CLEANER. J. C. Mace and H. M. Turner (to Inst. of Textile Technol.). USP 2 854 702, Oct. 7, 1958. (4581)

Cotton is introduced directly from the bale into a series of connected enclosures each of which is equipped with oscillating combs and bladed rotors. The masses of cotton are combed through grid bars to produce a relatively gentle stretching and disentangling action. Trash drops out of the air stream into trash boxes. The action of the apparatus is claimed to result in less damage with a high efficiency of cleaning and opening.

AIR FLOW CONTROL FOR PICKING MACHINE. L. Kozma (to Johnson & Johnson). USP 2 854 703, Oct. 7, 1958. (4582)

Improved control of picker lap uniformity is claimed as a result of the air flow arrangement described.

OPENING AND CLEANING MACHINE FOR MOHAIR STAPLES. C. Plassa and F. Plassa (Argentina). USP 2 856 641, Oct. 21, 1958. (4583)

CARDING AND COMBING B 2

ROLLER MECHANISM FOR CRUSHING IMPURITIES IN CARD WEBS. H. A. Caspari, F. Schnebel, and H. Hene (to Spinnbau GmbH). USP 2 854 700, Oct. 7, 1958. (4584)

PROCESS OF TREATING FIBERS TO FACILITATE PROCESSING. C. Harmon (to Chicopee Mfg. Corp.). USP 2 855 633, Oct. 14, 1958. (4585)

The treating material, e.g. polyoxyethylene derivative of sorbitan monolaurate, is applied in the form of very small particles dispersed in a gas acting as a carrier. This method gives uniform deposition of very small quantities.

AUTOMATIC MACHINE FOR FORMING FIBER LAPS. R. Kawazura, K. Fujii, and M. Fujiwara (to Kanegafuchi Spinning Co. Ltd). USP 2 856 136, Oct. 14, 1958. (4586)

SPINNING, WINDING, TWISTING B 4

PNEUMATIC BROKEN-END CATCHER. K. Ward (to Fairbairn Lawson Combe Barbour Ltd). BP 798 797, July 30, 1958. Through BCIRA 38: 600 (1958). (4587)

The exhaust from the suction fan of a pneumatic device for catching broken ends (sliver, yarn) is directed to the main driving motor of the machine in order to cool it.

RING SPINNING AND TWISTING MACHINES. A. J. Eidlow, M. Markowicz, and D. I. Morgan (to Courtaulds Ltd). BP 799 133, Aug. 6, 1958. Through BCIRA 38: 600 (1958). (4588)

In order to wind a transfer tail on a part of a ring spindle not normally traversed by the ring, cam mechanism is used to give the ring an additional displacement, with a latch (constituted by part of the cam profile) to maintain this displacement until, at a predetermined point in the traversing cycle, the latch is disengaged.

DUAL-BOSS TOP ROLLERS FOR DRAFTING MECHANISMS. J. Noguera (to Casablancas High Draft Co. Ltd). BP 799 248, Aug. 6, 1958. Through BCIRA 38: 600 (1958). (4589)

In a drafting device in which the roller bosses are mounted on a common arbor and there is an intermediate relatively rotatable sleeve member, and the end pivots may be used to support the side walls of apron guide cradles, the bosses are locked against relative rotation on the arbor by pins or the like that pass through radial holes in the bosses and engage in open slots in the arbor ends. The length of the arbor is such that when the bosses are in the correct position the slotted ends are inset from the outer ends of the boss bores.

METHOD AND APPARATUS FOR MAKING A BOBBIN TRANSFER TAIL ON A TWISTING MACHINE. J. T. Rich (to Am. Enka Corp.). USP 2 855 747, Oct. 14, 1958. (4590)

MECHANICAL DOFFING APPARATUS FOR SPINNING FRAMES. W. Hatch. BP 800 271, Aug. 20, 1958. Through BCIRA 38: 600 (1958). (4591)

A ring frame is fitted with a lifting rack mounted on a carrier that can be swung about a horizontal axis to bring the rack under the lower ends of full packages on their spindles and then made to slide upwards until the packages are doffed. Means also associated with the carrier then come into play to sever the ends and the packages are transferred to receiving means on the rack and conveyed to a collecting point. Empty tubes or bobbins, supported by a perforated slide on a horizontal rail, are then brought above the spindles and shifted so that they drop down on them. The rail is then lowered and the perforated slide serves to press the tubes or bobbins home on their spindles.

TOP DRAFTING ROLL UNIT. E. W. Starnes (to Russell Mfg. Co.). USP 2 853 743, Sept. 30, 1958. (4592)

Alignment bracket connecting a nebless front line top roll to a middle line top roll in such a way that the two rolls are maintained in parallel alignment at all times.

HYDRAULIC SPINNING APPARATUS. L. M. Keeler, J. G. Gamble, and A. J. Vincent. USP 2 853 847, Sept. 30, 1958. (4593)

Apparatus for forming a yarn by drafting fibers to form an untwisted sliver which is delivered into rapidly rotating liquid where the fibers are twisted into a strand.

TWISTING APPARATUS FOR COMBINING WOOL, COTTON, OR MANMADE FIBER YARNS WITH STRETCHABLE NYLON YARN. C. W. Harris and E. G. Hester (to Rockford Textile Mills). USP 2 854 812, Oct. 7, 1958. (4594)

RING SPINNING MACHINE. W. Leutert (to Brematex). USP 2 854 813, Oct. 7, 1958. (4595)

The yarn guides are mounted at the ends of retractable arms placed on a support which moves together with the ring rail and which acts to retract the yarn guides at the beginning of the underwinding stroke of the ring rail.

SPINDLES. J. D. Gleitz (to Curtiss-Wright Corp.). USP 2 855 666, Oct. 14, 1958. (4596)

Composite metal blade and whorl unit for supporting paper tube type bobbins.

STARTING WHEEL FOR DRAW TWISTER. W. A. Baumgarten and R. F. Little (to Am. Enka Corp.). USP 2 855 748, Oct. 14, 1958. (4597)

DRAFTING APPARATUS FOR LONG FIBERS. S. P. Spencer (to Whitin Mach. Works). USP 2 856 643, Oct. 21, 1958. (4598)

In an apron type drafting apparatus long fibers may be drafted uniformly and without breakage by positively driving both the lower and upper apron at different relative speeds.

FALSE TWIST SPINDLE. H. A. Schrenk, P. van Dijk, and J. W. I. Heijnis (to Am. Enka Corp.). USP 2 855 750, Oct. 14, 1958. (4599)

Bearing arrangement which permits high speed rotation without excessive wear.

PROTECTIVE COVER FOR DRAFTING MECHANISM. E. Rogner (to SKF Kugellagerfabriken GmbH). USP 2 856 642, Oct. 21, 1958. (4600)

Covering to prevent dirt accumulation and catching or tearing of roving on the elements of the drafting mechanism of a spinning machine.

DEVICE FOR ATTACHING TRAVELER SPLIT RINGS TO SPINNING RINGS. S. Furst (to Reiners & Furst). USP 2 856 676, Oct. 21, 1958. (4601)

PLUMBING AND ALIGNING TOOL FOR SPINDLES. C. A. Williams. USP 2 856 696, Oct. 21, 1958. (4602)

SPINDLE MOTOR. C. P. Geen (to Industrial Devices Inc.). USP 2 856 749, Oct. 21, 1958. (4603)

Fractional horsepower hydraulic motor capable of normal operation in excess of 10,000 rpm.

DEVICE IN SPINNING FRAME FOR WINDING YARN END ON NECK OF SPINDLE. T. Arai (to O-M Spinning Mach. Mfg. Co. Ltd). USP 2 857 114, Oct. 21, 1958. (4604)

Device for automatically lowering the ring rail beyond its starting position when the machine stops, so as to bring a traveler on a ring to the level of a spindle and cause the yarn to wind on the spindles as they are still revolving due to inertia.

YARNS B 5

EFFECT YARNS FROM LINEAR POLYCONDENSATION PRODUCTS. NV Onderzoekingsinst. Research. BP 798 909, July 30, 1958. Through BCIRA 38: 601 (1958). (4605)

Monofils, particularly of nylon, are continuously stretched and submitted to dry heat (135-155° C) on a ring twisting frame, wound on the ring spindles, and subsequently twisted still further.

METHOD AND APPARATUS FOR THE PRODUCTION OF BULK YARN. A. H. Burkholder (to Industrial Rayon Corp.). USP 2 854 814, Oct. 7, 1958. (4606)

Continuous process for preparing bulk yarn from continuous multifilament yarn by axially withdrawing the yarn from a rotating helix; forming an enmeshed, twisted, tubular structure; and stretching.

ACID RESISTANT STITCHED BAG CLOSURE. A. F. Ottinger and B. R. Stetson (to Bemis Bros. Bag Co.). USP 2 855 881, Oct. 14, 1958. (4607)

Line of stitching using a composite yarn with a core of an acid resistant synthetic fiber (e.g. nylon) and bulking strands of a cellulose fiber.

PRODUCTION OF TIRE CORD. F. Ridgway (to Arundel, Coulthard & Co. Ltd). BP 798 955, July 30, 1958. (Addition to BP 745 598). Through BCIRA 38: 601 (1958). (4608)

The parent invention related to a machine with alternate pairs of uptwisting and cabling spindles on both sides of the frame. To reduce its length it is now proposed to have one set of the uptwisters, except the end pairs, in front of and slightly to the side of the other spindles in the general line.

APPARATUS FOR PRODUCING PACKAGES OF STRETCHED AND TWISTED CONTINUOUS FILAMENT HIGH POLYMER YARN FREE FROM UNSTRETCHED PORTIONS. A. Würmli (to J. J. Rieter & Cie AG). BP 799 009, July 30, 1958. Through BCIRA 38: 601 (1958). (4609)

The bundle of filaments is continuously fed into a jet of highly compressed gas, then over drawing rollers and finally to a ring spindle.

YARN APPARATUS. W. Williams and J. R. Wylde (to Brit. Celanese Ltd). BP 799 185, Aug. 6, 1958. Through BCIRA 38: 601 (1958). (4610)

A continuous-filament yarn is converted into a yarn having the properties of one spun from the staple fiber by passing it through a turbulent stream of fluid (e.g. air) having such force that some filaments are ruptured, and drawing the product out of the stream at a lower speed and collecting it as a yarn, e.g. on a ring spindle.

FABRIC PRODUCTION C

THREAD TENSIONING MECHANISM. Maschinenfabrik Schweiter AG. BP 799 863, Aug. 13, 1958. Through BCIRA 38: 603 (1958). (4611)

The mechanism has not less than two tensioning devices in series and controlled by one spring-biased pressure plate. A feeler is provided to respond to the tension in the thread between the feed and delivery tensioning devices and cause the pressure of the plate to be relieved if the tension increases.

STOP MOTION FOR ELASTIC TAPE BRAIDING MACHINE. B. Hutnick. USP 2 856 808, Oct. 21, 1958. (4612)

Means responsive to the breaking of a rubber warp to disengage the clutch and stop the machine.

WARPING, SLASHING, YARN PREPARATION C 1

BOBBIN HOLDERS FOR WINDING MACHINES. Barmer Maschinenfabrik AG. BP 799 744, Aug. 13, 1958. Through BCIRA 38: 603 (1958). (4613)

The holder comprises, as a unit, pivotable carrier stirrups that are rigid in themselves, and pincer-like bobbin pin holders arranged on the stirrup arms so that their jaws close automatically during winding and open when the stirrups are moved out of the winding position. Two stirrups are mounted back to back on a common bracket in the one unit.

DEVICES FOR TYING THREAD ENDS. Zellweger Ltd. BP 799 171, Aug. 6, 1958. Through BCIRA 38: 603 (1958). (4614)

The knotting bill of a knot-tying tool is made, by co-action with a cam on the segment, to perform at least one extra turn and thus insert at least one more loop in the yarn. The device is therefore suitable for tying knots in springy yarn.

SLASHER WINDING MECHANISM. E. V. Quinn and E. V. Quinn, Jr. (to Unistel Textile Mach. Corp.). USP 2 856 671, Oct. 21, 1958. (4615)

Mechanism which permits the continuous winding and changing of beams on the slasher even while the warp ends are being fastened onto an empty beam.

SUCTION NOZZLE FOR CATCHING AND RETAINING THREAD ENDS IN WINDING MACHINES. W. Klipper (Germany). USP 2 857 113, Oct. 21, 1958. (4616)

WEAVING C 2

ELECTROMAGNETIC WEFT STOP-MOTION FOR A NARROW LOOM. H. G. Smith (to G. Hattersley & Sons Ltd). BP 798 966, July 30, 1958. Through BCIRA 38: 604 (1958). (4617)

The batten carries multiple-tier shuttle boxes each operating with two or more shuttles. Each shuttle has a brass or other metal pirn connected by a wire to a brass strip at the rear of the shuttle.

CIRCULAR LOOMS. R. N. Low (to Fairbairn Lawson Combe Barbour Ltd). BP 799 586, Aug. 13, 1958. Through BCIRA 38: 604 (1958). (4618)

The shuttle is driven by means of a pusher block assembly comprising a bracket mounted on a driving member and carrying a bearing in which is a shaft on which are mounted two discs that grip a replaceable cot and a nut or the like for clamping the discs to their shaft with the cot between them.

WINDING OF LACE-MAKING MACHINE BOBBINS. W. J. R. Pegg (to J. Pegg & Sons (1954) Ltd). BP 799 738, Aug. 13, 1958. Through BCIRA 38: 604 (1958). (4619)

To enter a thread in a lace machine bobbin, the rim of the empty bobbin is inserted into a convergent guide already holding the thread and this is passed into the bobbin by a relative movement between the guide and the bobbin.

ECCENTRIC MECHANISMS FOR JACQUARDS. J. C. Dean. BP 799 791, Aug. 13, 1958. Through BCIRA 38: 604 (1958). (4620)

The invention relates to an eccentric mechanism on which there is superimposed a cam, driven from the eccentric shaft to modify the action of the sheave on the strap by engagement with a part attached to the strap. Provision is made for relative movement between the sheave and the cam to allow for this. The mechanism is particularly designed for use with the griffe-operating mechanism of a jacquard device.

SHUTTLE. R. Schmidt (Germany). BP 799 911, Aug. 13, 1958. Through BCIRA 38: 604 (1958). (4621)

The skewer ("pivotal spindle") is held in the weaving position by means of a spring located in a recess in the head of the shuttle.

BUFFERS FOR LOOMS. E. Haag (Germany). BP 799 916, Aug. 13, 1958. Through BCIRA 38: 604 (1958). (4622)

The buffer includes a flat spring formed of a number of bands of drawn nylon secured by an adhesive. The spring is fixed within a U- or S-shaped leather body.

QUILL HANDLING AND POSITIONING MECHANISM. R. M. Ingham, Jr. (to Deering Milliken Research Corp.). USP 2 854 730, Oct. 7, 1958. (4623)

Mechanism for positioning quills in single file alignment and feeding them to quill strippers.

PICKER STICK CHECK. P. J. Shivell (to Slip-Not Belting Corp.). USP 2 855 004, Oct. 7, 1958. (4624)

Check strap which is mounted so that it moves freely throughout most of each inward and outward stroke of the picker stick. Uniform braking is accomplished with the use of a relatively short strap.

PUMP AND NOZZLE SYSTEM FOR NOZZLE OPERATED LOOMS. V. Svaty, J. Mohelnicky, and S. Zahradnik (to Mira Nar. Pod.). USP 2 855 959, Oct. 14, 1958. (4625)

RESERVE BOBBIN WEFT END HOLDING DEVICES. E. C. Alix and H. A. Wilson (to A & W Mach. Co.). USP 2 855 960, Oct. 14, 1958. (4626)

BOBBIN LOADING MACHINE. G. E. Repass (to Draper Corp.). USP 2 856 740, Oct. 21, 1958. (4627)

Machine for loading bobbins in magazines for use on automatic weft replenishing looms.

PAPER PATTERN CONTROLLED DOBBY. C. P. Bergstrom, E. F. Dolbeare, and E. R. Holmes (to Crompton & Knowles Loom Works). USP 2 856 964, Oct. 21, 1958. (4628)

Mounting and actuating means for the paper pattern cylinder which permits adjustment of the time of turning of the cylinder independently of the position of other parts of the dobby.

GUARD FOR DOBBY PAPER PATTERN CYLINDER. E. F. Dolbeare and A. C. Krukonis. USP 2 856 965, Oct. 21, 1958. (4629)

Guard which prevents manual turning of the cylinder until the needles have been removed from the pattern perforations.

PAPER PATTERN MECHANISM FOR DOUBLE INDEX DOBBY LOOMS. C. Thevenon (to Crompton & Knowles Loom Works). USP 2 856 966, Oct. 21, 1958. (4630)

PICKER STICK CHECK. H. H. McClamroch. USP 2 856 967, Oct. 21, 1958. (4631)

Check which does not become overheated during operation and which checks the motion of the picker stick in both directions.

KNITTING C 3

APPARATUS FOR THE EXAMINATION OF WOMEN'S STOCKINGS. C. Hartshorn (to Fabri-Tubes Ltd). BP 800 155, Aug. 20, 1958. Through BCIRA 38: 618 (1958). (4632)

The stockings (or other fine-gage materials) are viewed on a transparent traveling belt through which light is directed. An opaque, dark belt may be attached to the main belt and the goods also viewed in light shining downwards.

WELT TAKEUP MECHANISM FOR FULL-FASHIONED KNITTING MACHINE. A. J. Cobert (to Beautiful Bryans, Inc.). USP 2 853 863, Sept. 30, 1958. (4633)

STOP MOTION FOR STRAIGHT-BAR KNITTING MACHINES. J. Václavik and O. Bayer (to Zapadomoravske Strojirny). USP 2 853 864, Sept. 30, 1958. (4634)

Stop motion which causes an automatic displacement of the needle bar out of range of the sinker head presser edge, as well as stopping the machine.

PICOT EDGE ON CIRCULAR STOCKING. J. J. McDonough (to Scott & Williams, Inc.). USP 2 853 865, Sept. 30, 1958. (4635)

Method of producing nylon picot edges on turned welts of circular knit women's hosiery.

FLAT HOSIERY BLANK OF THERMOPLASTIC YARN. A. J. Cobert (to Beautiful Bryans, Inc.). USP 2 853 867, Sept. 30, 1958. (4636)

Flat hosiery blank which can be knitted on a full-fashioned knitting machine by controlling the number and type of stitches making up each successive course.

METHOD OF LOCKING THE LOOPS OF A SWISS RIB KNIT FABRIC WITHOUT RACKING. J. L. Morris. USP 2 854 832, Oct. 7, 1958. (4637)

NEEDLE SELECTING MECHANISM FOR CIRCULAR HOSIERY MACHINES. J. M. R. Reymes-Cole and E. Wesson (to B. Toone (Nottingham) Ltd). USP 2 854 833, Oct. 7, 1958. (4638)

Attachment for enabling an existing machine to produce mesh fabric by selecting needles to tuck at appropriate intervals.

WARP KNITTING MACHINE. G. Bitzer (to Textile Mach. Works). USP 2 854 835, Oct. 7, 1958. (4639)

Mounting means for controlling the linear movements of the knitting and yarn feeding elements induced by an increase in temperature during knitting.

YARN STRIPING MECHANISM FOR CIRCULAR KNITTING MACHINE. J. Sirmay and D. B. Brinton (to Scott & Williams, Inc.). USP 2 854 834, Oct. 7, 1958. (4640)

KNITTING MACHINE NEEDLE HOOK. J. L. Morris. USP 2 854 836, Oct. 7, 1958. (4641)

Hook with a relatively square shape to give an increased inside dimension together with a decreased outside dimension.

CONTROL MECHANISM FOR MULTIPLE FEED CIRCULAR KNITTING MACHINES. R. E. Zeruneith. USP 2 854 837, Oct. 7, 1958. (4642)

Relatively stationary control mechanism which selectively positions movable cams to determine the knitting character of each feed.

CIRCULAR KNITTING MACHINE CAPABLE OF PRODUCING INTARSIA FABRIC. D. Gell (to Charnwood Eng. Co. Ltd). USP 2 856 762, Oct. 21, 1958. (4643)

KNITTING MACHINE FOR HOME USE AND FOR SMALL PRODUCTION. A. Kaufmann (France). USP 2 856 763, Oct. 21, 1958. (4644)

FABRIC LENGTH CONTROL APPARATUS FOR CIRCULAR KNITTING MACHINES. W. L. Carden (to Acme Hosiery Mills). USP 2 856 764, Oct. 21, 1958. (4645)

Yarn tension device in combination with fabric takeup means in which the position of the takeup means relative to the knitting wave determines the yarn tension at frequent intervals.

HOSIERY FORM INSERTING APPARATUS. W. V. Bowman and F. H. Houck. USP 2 857 085, Oct. 21, 1958. (4646)

FABRICS C 4

STIFFENING COLLARS. E. Kornreich (to Trubenised (Gt. Brit.) Ltd). BP 798 805, July 30, 1958. Through BCIRA 38: 605 (1958). (4647)

The interlining fabric, containing cellulose acetate yarns as usual, is coated or impregnated with polythene.

LIGHT WEIGHT CELLULOSE ACETATE FABRICS. P. F. C. Sowter and H. Bates (to Brit. Celanese Ltd). BP 799 358, Aug. 6, 1958. Through BCIRA 38: 605 (1958). (4648)

An acetone solution of cellulose acetate is extruded into an aqueous bath (e.g. of diethylene glycol diacetate) to give a yarn of less than 100 den. (individual filament, less than 5 den.). The yarn is woven into light-weight fabric and this is treated, without swelling, to increase the acetyl content (e.g. from 51.5-55% to 59-62.5%). The characteristic of the product is that it resists the development of differential luster effects.

CARPET TUFTING MACHINE WITH PATTERN CONTROL. A. H. Crawford (to Mohasco Inds.). USP 2 850 994, Sept. 9, 1958. (4649)

Machine of the multiple needle type in which the height of each of the pile loops can be controlled in accordance with a selected design.

APPARATUS FOR CONTROLLING TUFTED CARPET PILE HEIGHT. H. F. Odenweller and A. H. Crawford (to Mohasco Inds.). USP 2 853 032, 2 853 033, and 2 853 034, Sept. 23, 1958. (4650)

Method and apparatus for feeding pile yarn to a tufting machine at variable rates of speed, according to a predetermined pattern, so that a pile surface of varying height is obtained.

TUFTED RUG MACHINE. F. W. Hartstein. USP 2 853 963, Sept. 30, 1958. (4651)

The breakage of threads when the tufts are stitched into place is prevented by reducing the tension on the threads as they are drawn through the fabric.

PAPERMAKERS FELT. J. R. L. Santos (to William E. Hooper & Sons Co.). USP 2 854 032, Sept. 30, 1958. (4652)

Method of producing a felt with a face completely covered by asbestos warps and a relatively open back.

BONDED STAPLE LENGTHS OF GROUPED FILAMENTS. S. Palmer (to Versil Ltd). USP 2 854 059, Sept. 30, 1958. (4653)

Apparatus for cutting staple lengths of grouped and bonded filaments, e.g. glass filaments, and for producing mats of the bonded staple lengths for use in resin laminates.

WEAR RESISTANT COATING FOR BELTING. H. W. Wilson. USP 2 854 351, Sept. 30, 1958. (4654)

The marginal edges are impregnated with a cured mixture of graphite and a butadiene-styrene elastomer to prevent fraying.

INTERLINING OR STIFFENING FABRIC. G. Kufner (Germany). USP 2 855 005, Oct. 7, 1958. (4655)

Interlining fabric one face of which is rough and formed primarily of prickly, hairy weft threads, and one face of which is smooth and formed primarily of cotton warp threads.

CHEMICAL COOLING GARMENT. T. R. Johnson. USP 2 855 758, Oct. 14, 1958. (4656)

Garment composed of two layers of impervious fabric with a pocket containing a chemical with a negative heat of solution between them. Spaced absorbent threads pass from one layer to the other. When moisture (water or perspiration) comes into contact with the chemical, a cooling effect is produced.

INDENTED RESILIENT MATTED FIBROUS PAD FOR USE AS RUG UNDERLAYS, PACKING MATERIAL, WALL COVERINGS, INSULATION, ACOUSTIC DAMPING MATERIAL, ETC. J. C. Gordon. USP 2 856 323, Oct. 14, 1958. (4657)

The indentations are fixed by means of a solid binder.

FINISHING AND CHEMICAL PROCESSING D

CHEMICAL PROCESSES D 1

TREATING FABRICS OF CELLULOSE TRIACETATE YARNS. D. Finlayson and B. Krzesinski (to Brit. Celanese Ltd). BP 797 662, July 9, 1958. Through BCIRA 38: 511 (1958). (4658)

Unwanted wrinkles that are sometimes produced when fabrics containing cellulose triacetate yarns are exposed to steam or hot water (e.g. at 120-145° C) are avoided if the fabric is first thoroughly wetted.

CHLORITE BLEACHING OF CELLULOSE. Deutsche Gold & Silber Scheideanstalt. BP 797 951, July 9, 1958. Through BCIRA 38: 507 (1958). (4659)

The material is steeped in the chlorite solution (at pH less than 7), excess liquor is squeezed out, and steam is blown through the closely packed mass to raise its temperature to 95-100° C, which is maintained (e.g. by repeated blowing of steam) for 30-60 min.

SURGICAL DRESSINGS. T. P. Davies (to Johnson & Johnson (Gt. Brit.) Ltd). BP 798 471, July 23, 1958. Through BCIRA 38: 510 (1958). (4660)

The porous fabric is impregnated with an aqueous dispersion of polythene, dried, and also treated, if desired, with a silicone resin.

PREVENTING RUNS IN KNITTED FABRICS. S. O. B. Ljungbo (Sweden). BP 798 546, July 23, 1958. Through BCIRA 38: 510 (1958). (4661)

The invention is mainly concerned with stockings knitted from nylon monofil. To secure the threads at points of intersection, the stockings are treated with a mixture of (1) a solvent for nylon (e.g. phenol or formic acid), (2) a diluent (e.g. acetic acid), and (3) a synthetic resin (e.g. nylon itself), dried, and washed.

SECURING KNOTS OR CROSS-OVER POINTS IN NETTED OR KNITTED FABRICS. S. O. B. Ljungbo (Sweden). BP 799 456, Aug. 6, 1958. Through BCIRA 38: 604 (1958). (4662)

Knots and cross-over points are fixed in nylon monofil structures (e.g. fishing nets) by the application of an acidic solvent for nylon (e.g. acetone + formic acid) containing a polyvinyl acetal and an aldehyde.

OPTICAL BRIGHTENING AGENT FOR WOOL. A. E. Siegrist and W. Mueller (to Ciba Ltd). USP 2 856 311, Oct. 14, 1958. (4663)

FIRE-RESISTANT TREATMENT. A. E. Stubbs and L. T. Whittaker (to Bleachers' Assoc. Ltd). BP 799 606, Aug. 13, 1958. Through BCIRA 38: 613 (1958). (4664)

The agent is a resin prepared by the action of formaldehyde on an ester of phosphorodiamidic acid. It may be applied in conjunction with creaseproofing and stabilizing resins.

DEVICE FOR REMOVING STAINS FROM FABRICS. H. Glaeser (Germany). BP 800 063, Aug. 20, 1958. Through BCIRA 38: 614 (1958). (4665)

The invention relates to a tool for mechanically dabbing a stained fabric with a cleaning fluid. The actual part for "beating" the fabric is a brush, scraper, or pronged device that may be attached to a domed head to which the solvent flows from a container via a flexible tube and which is also connected to a vibrator. Containers for various solvents may be mounted on the vibrator.

VACUUM DEPOSITION OF METALS ON WEBS. W. Kunsch (Germany). BP 800 093, Aug. 20, 1958. Through BCIRA 38: 612 (1958). (4666)

In a process in which metal or dye is vaporized and deposited in a high vacuum on a web, such as a cotton, rayon, or nylon fabric, the web is impregnated, before or after the treatment, with a synthetic resin that has an affinity for both the fabric and the deposit.

BONDING OF POLYVINYL CHLORIDE TO TEXTILE MATERIALS. E. Knowles and T. J. Meyrick (to Imp. Chem. Inds. Ltd). BP 800 097, Aug. 20, 1958. Through BCIRA 38: 612 (1958). (4667)

Before applying a coating of polyvinyl chloride to textile materials (Terylene, nylon, or viscose fabrics) the material is treated with a vinyl chloride/acetate copolymer and an organic polyisocyanate.

COATED GLASS FABRICS. T. J. Motter and W. L. Elton (to L. O. F. Glass Fibers Co.). USP 2 854 355, Sept. 30, 1958. (4668)

Glass fabrics with increased softness and receptivity to resins are obtained by coating them with an aqueous solution of a hydrolyzed vinyl silane.

INCREASING FLUFFINESS OF LANDFOWL FEATHERS E. R. Frederick and M. C. Jaskowski (to U. S. Secy. Army). USP 2 857 237, Oct. 21, 1958. (4669)

Landfowl feathers with increased fluffiness and filling power and free of odors and vermin are produced by treatment with sodium hydrosulfide.

METHOD FOR THE CYANOETHYLATION OF COTTON TEXTILE FIBERS. N. M. Bikales (to Am. Cyanamid Co.). USP 2 857 239, Oct. 21, 1958. (4670)

Cotton, cyanoethylated in a single bath containing a large amount of alkali and a small amount of acrylonitrile, shows increased tensile strength, improved resistance to heat degradation, and resistance to microorganisms greater than that of untreated cotton but less than that of cotton cyanoethylated by the 2-step process.

ABRASION RESISTANT GLASS FIBERS. L. R. B. Hervey and D. E. Till (to Arthur D. Little, Inc.). USP 2 854 356, Sept. 30, 1958. (4671)

Glass fibers with increased abrasion resistance are produced by application of an amine fluosilicate.

NYLON SIZING AGENT. J. H. Johnson and J. E. Fields (to Monsanto Chem. Co.). USP 2 854 357, Sept. 30, 1958. (4672)

Sizing agent consisting of a C_2 or C_3 olefin/maleic interpolymer is claimed.

HOSIERY SETTING APPARATUS. H. Richter (to Paramount Textile Machy. Co.). USP 2 856 108 and 2 856 109, Oct. 14, 1958. (4673)

Long, narrow retort adapted to receive a large number of hosiery forms in a relatively small chamber, in order to reduce steam consumption to a minimum. The retort is also equipped with means for automatically moving the forms to and from a stripping and boarding position after the steam setting.

ODORPROOF FINISH FOR COTTON FABRICS. H. N. Vagenius. USP 2 856 330, Oct. 14, 1958. (4674)

Method of treating cotton fabrics, especially diapers, to prevent or delay development of unpleasant odors on exposure to urine or perspiration consists in immersing the fabrics in a dilute solution of a water soluble copper salt and disodium dihydrogen pyrophosphate. The fabrics are neither tinted green nor rendered water repellent as a result of the treatment.

BLEACHING PROCESS FOR COCONUT FIBERS. J. M. Bulder (to NV Amsterdamsche Maatschappij). USP 2 857 238, Oct. 21, 1958. (4675)

Pure white fibers, free of the tannic acid which causes discoloration, are obtained by bleaching with sodium hydrosulfite at 70 to 90° C for 15 min.

DYEING AND PRINTING D 2

DYEING OF TEXTILE FABRICS. W. Watkins. BP 795 875, June 4, 1958. Through BCIRA 38: 439 (1958). (4676)

The fabric is passed through a small volume of dye liquor confined at the nip of a pair of padding rollers, and then to a heating (steaming) chamber.

WARP DYEING MACHINE. G. S. Marr (to Brit. Cotton & Wool Dyers' Assoc. Ltd). BP 797 533, July 2, 1958. Through BCIRA 38: 510 (1958). (4677)

The invention relates particularly to a continuous warp-dyeing machine that comprises (1) a tank divided by longitudinal partitions, (2) means for feeding warp drafts at one end of the tank and withdrawing them at the other, each lying loosely in its particular compartment, and (3) means for feeding the dye liquor. The tank may be suspended in a container into which the liquor overflows at the outlet end and from which it is pumped back to the inlet end.

FLUORESCENT STILBENE DERIVATIVES. Sandoz Ltd. BP 796 211, June 4, 1958. Through BCIRA 38: 439 (1958). (4678)

A series of green-fluorescent agents for correcting redness in textile materials.

LABORATORY DYEING MACHINE. H. Horsfall (to Horsfall Eng. Co. Ltd). BP 798 905, July 30, 1958. Through BCIRA 38: 611 (1958). (4679)

The yarn supports depend into separate dyebaths from a common head mounted on a shaft that reciprocates vertically. The supports are of wire with a flat, twisted portion that passes through slots in a cover so that the supports turn as well as move up and down.

CLOSED-CIRCUIT DYEING MACHINE OR AUTOCLAVE. P. S. Riba (Spain). BP 798 990, July 30, 1958. Through BCIRA 38: 611 (1958). (4680)

In order to prevent one yarn package from being compressed by those above it, the rotating autoclave is arranged horizontally instead of vertically.

DYEING APPARATUS CIRCULATION SYSTEM. C. K. Fick (to Dexdale Hosiery Mills). USP 2 845 787, Aug. 5, 1958. (4681)

Circulation system particularly adapted for use in dyeing of piece goods or yarn in connection with equipment incorporating a shell within which the dyeing liquor circulation may be reversed.

IMPROVING THE ACID DYE RECEPTIVITY OF NYLON TEXTILES. J. Zimmerman (to E.I. du Pont de Nemours & Co.). USP 2 855 267, Oct. 7, 1958. (4682)

Nylon is pretreated by heating with hexamethylene diamine in order to improve its dyeability with acid dyes.

PROCESS OF DYEING WOOL WITH VAT DYES. S. G. Coscia (to U.S. Secy. Army). USP 2 857 235, Oct. 21, 1958. (4683)

Wool fibers in the form of tops are dyed in a bath consisting of an anthraquinone vat dye, alkali hydrosulfite, and alkali maintained at a pH of 12.8 to 13.1 for 10 to 60 sec at 120 to 160° F and neutralized immediately to prevent fiber damage.

MECHANICAL PROCESSES D 3

AUTOMATIC ROLLER LIFTING DEVICES FOR FABRIC CALENDERS. P. Kleinewefers (Germany). BP 799 416, Aug. 6, 1958. Through BCIRA 38: 612 (1958). (4684)

The arrival of a seam in the fabric is detected by a mechanical-electrical or optical-electrical feeler and the pulse is used to separate two pressure rollers. Two feelers are used, one at a short distance in advance of the other but laterally offset, and their pulses are tested in an electronic switching device so that this only responds if the pulses are transmitted within a time interval that corresponds with the speed of the fabric.

HELICAL EXPANDER FOR ELIMINATING WRINKLES FROM A SHEET OF CONTINUOUS FABRIC. E. C. Scarbrough (to Firestone Tire & Rubber Co.). USP 2 848 779, Aug. 26, 1958. (4685)

APPARATUS FOR RANDOM PLEATING OF FABRIC. H. Guenther and R. C. Squier (to Joseph Bancroft & Sons Co.). USP 2 851 206, Sept. 9, 1958. (4686)

ADJUSTABLE CLOTH ROLL ARBOR. I. Bergelson. USP 2 851 227, Sept. 9, 1958. (4687)

DRYING D 4

APPARATUS FOR DRYING TEXTILES. G. W. Adams. BP 795 314, May 21, 1958. Through BCIRA 38: 441 (1958). (4688)

One or more horizontal, endless bands is/are used to carry fabric between upper and lower air ducts each of which has openings for directing warm air through the traveling fabric. The fabric enters the apparatus over a roller around which a ring of pivoted slats passes in a noncircular path; the slats flatten out as they come to the top of the roller and serve to stretch the fabric and smooth out creases.

MACHINE FOR DRYING LENGTHY MATERIALS. Boussac Etab. BP 795 337, May 21, 1958. Through BCIRA 38: 441 (1958). (4689)

The machine comprises a first "chamber" leading to an "enclosure" in which is a heated, rotary drum. The air in the enclosure is circulated by a blower towards the chamber but part of the air passes through an exhaust to the atmosphere and is replaced by an equal weight of fresh air. The material is thus partially dried in the chamber before it passes over the drum.

TESTING AND MEASUREMENT E

FABRICS E 3

APPARATUS FOR MEASURING THE MOISTURE CONTENT OF FABRICS. J. B. Collins (to Firestone Tire & Rubber Co.). USP 2 849 676, Aug. 26, 1958. (4690)

The moisture content is measured by an electrical method depending on the resistance value of a given length of processed fabric.

CAPSTAN TYPE GRIPPING MEANS FOR FABRIC TENSILE STRENGTH TEST SPECIMENS. H. A. Mereness and G. G. Fornes (to Inst. of Textile Technol.). USP 2 850 895, Sept. 9, 1958. (4691)

FABRIC TESTER. B. D. Maule. USP 2 851 878, Sept. 16, 1958. (4692)

Portable device for testing the strength of fabrics used on light aircraft or boats without removing the fabric.

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